1: Bowen-Jones et al. EZ6 Malta EZ6

241

[For additional data on general aspects of agriculture, see category 116, pp. 235-288.]

D. SEABORNE AND AIRBORNE TRAFFIC 1958[3]. 505 509

	Total - Calling - British				Passengers (No.)			Freight (Tons)	
	Number	Tonnage	Number	Tonnage	In	Out	Transit	In	Out
Steam Vessels	1,792	2,698,803	458	1,349,925)	9,852	10,745	35,175	568,626	54,927
Sailing Vessels	267	22,626	15	122)					
Aircraft	3,283	91,661	3,116	87,857	30,232	31,501	28,848	588	238

E. AGRICULTURE[4] 241 433

		Acreage	Yield-tons
(i)	Total Area cultivated	44,235	
(ii)	Wheat	5,000	3,000
	Barley and Mixta	4,083	2,158
	Forages (inc. sulla, vetches & Ferrana)	11,824	3,855
	Broad Beans	1,250	500
(iii)	Potatoes - Spring crop	4,763* (1957-6,000)	15,420
	- Winter crop	3,228	7,360
	Melons	1,837	1,939
	Onions	1,263	3,389
	Tomatoes	1,912	8,588
	Other vegetables	5,000	16,198
(iv)	Grapes	5,000	6,000**
	Citrus	160	500**
	Other fruit	1,000	6,000**
(v)	Cotton	3 (1956-187)	1
	Cumin Seed	8 (1952-518)	2

* Note. Abnormally low.
** Note. Acreage and yield of treecrops in particular should be treated as indicating only orders of magnitude.

(vi) Livestock (Enumeration) 231

Horses, Donkeys and Mules	6,575
Goats	36,944 (1950-50,159)
Sheep	15,011 (1950-20,148)
Imported Store bulls	3,081
Milk cows	4,178 (1950- 2,861)
Other cattle	2,466
Swine	16,362

(vii) Number of holdings 12,192 423

Number of mechanized implements	- 2 wheeled	700
	- 3 & 4 wheeled	54
	- tracked	25
	- milking machines	7
	- threshers	22

407

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

133

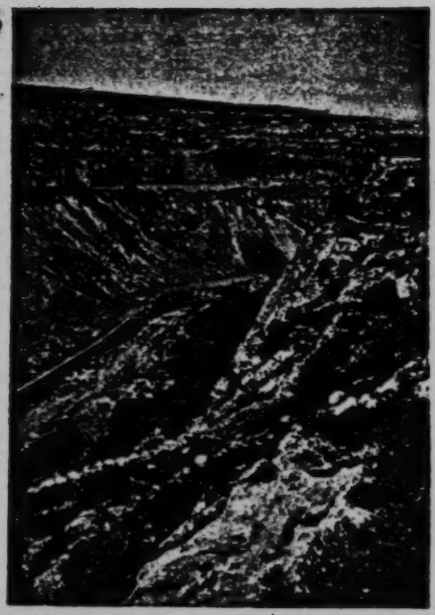


Plate I. Wied ta l'Isperanza. North of Mosta the valley cuts through the Lower Coralline fault-scarp of the Victoria Lines.

133
241

Plate II. Western edge of Upper Coralline Plateau. Spring.
Foreground: ramped fields on Blue Clay slopes. Middle distance: Girgenti orchards and gardens. Background: Upper Coralline karst.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

133
241

Plate III. The Central Plains. Summer.
Foreground: summer vegetable cultivation. Middle distance: carob trees on valley side.
Background: Wied is-Sewda and Qormi village.

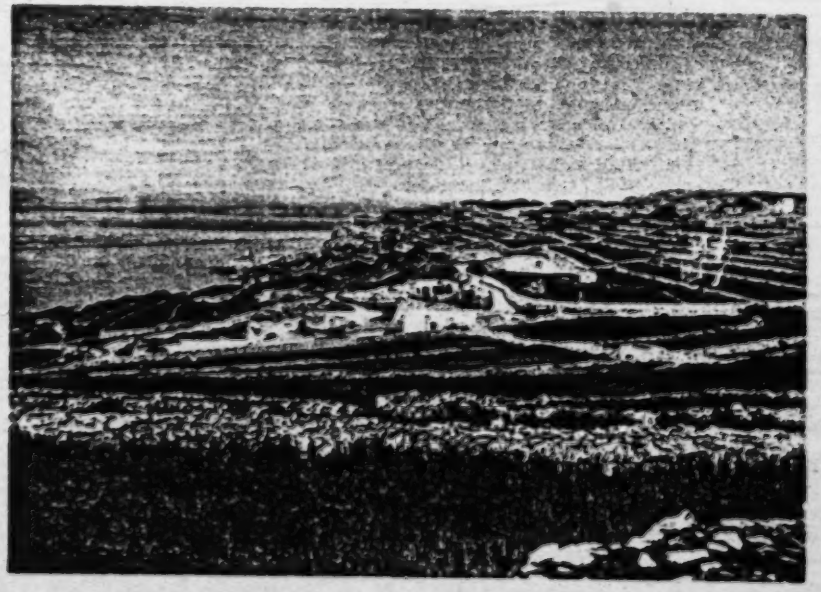


Plate IV. Cliffs south of Zurrieq. Spring. Narrow, terraced fields.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

In Table 13, corresponding data are given for the four years whose totals are nearest to the mean. Even here, monthly amounts deviate widely from monthly averages, there being only five occasions on which this deviation was less than 10 per cent. 1939 and 1952 display the greatest variability, 1888 and 1931 the nearest approach to average conditions throughout the year. 132*

Theoretically, it would be possible to classify the rainfall of every year in terms of lateness and earliness as well as dryness and wetness. In practice, the variation is so great that any such classification would obscure rather than clarify the picture. Nevertheless, two types of rainy season may be distinguished. One involves a long wet spell lasting two or three months, broken by short spells of dry weather, as in 1927-28 and 1928-29. Generally, this type consists of many days of moderate rainfall, though a few outbursts of heavy rain do occur. Periods of heavy rain are, however, more typical of the second type of rainy season, exemplified by 1911-12 and 1919-20, which consists of a series of short wet spells with relatively long dry periods between. In all years, the rains are broken by spells of dry, sunny and often warm weather which are of great importance to the farmer, most of whose ploughing and sowing must be executed in the wetter, winter months. Such fine spells are also not without significance to any proposed expansion of the tourist industry. [241]

Emphasis has so far been laid on the extreme variability of the Maltese rainfall in time; in the following discussion of exceptionally heavy rainstorms, spatial variations are equally important.

STORM RAINFALL

The rainfall of the Maltese Islands is predominantly convectional, resulting from rising currents in turbulent air masses, the turbulence being the result of heating or of contact between masses of air at different temperatures. The orographic effect is also important. The presence of a land mass rising 800 feet out of the sea is sufficient to 'trigger off' precipitation in an air mass already unstable while, in summer, heating of the air above a lightly-coloured, dry, soil- and rock-covered surface will increase instability and encourage the development of thunderstorms.

The definition of 'storm rainfall' is necessarily subjective. Observation would suggest that a continuous fall amounting to 2 inches or more leads to significant run-off and physical damage and that such conditions are likely to occur on any day with 3 inches or more of rain. Accepting this definition, it follows that seven storms were recorded between 1901-02 and 1935-36.

Figures 12 and 13, illustrate two of these storms. In the first, eyewitness reports indicate that the rain continued for no longer than two hours, while the second, that of 22nd November, 1915, is described by Agius (22): 'A thunderstorm of exceptional intensity passed over the island in the early hours... and the amount of rain registered was nearly equal to that recorded in another remarkable outburst... some 40 years ago'. About the same time, there was much rain damage in Sicily, where 60 people lost their lives, and in Sardinia. During the period in which the number of rainfall stations was small, several major storms may have gone unrecorded, as would have been the case in one of the most recent, that of 12th October, 1957, had the Valletta record only (1.27 inches) been available. It is fortunate that the presence of one of the authors in Malta during the autumn of 1957 enabled him to study the storms of that period and their effects in some detail.

Early in August 1957, very localised rainfall caused some damage and flooding in the centre of the Island (33) but it was not until 22nd September that the first significant fall of the year took place at Valletta. Rain fell on several occasions in late September and early October and on 11th-13th October occurred some of the most violent storms of recent decades (Figs. 14 and 15).

During the 24 hours beginning at 0900 on 11th October, the heaviest falls occurred in the south-west of Malta. Figure 16 shows hourly rainfall at Mitieb and ta'Kandja where autographic records are available. The rainfall of the 11th/12th took place in three distinct phases, the first of which was barely felt at ta'Kandja, while at Mitieb the second phase was relatively unimportant. The sequence of events appears to have been as follows.

[Text continues on p. 66]

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

should be ascribed to the general wetness of the season rather than to these storms alone. A general picture of the damage can be obtained from the local press (24) but certain aspects, of interest to the hydrologist and agriculturalist alike, are worthy of elaboration here. The notes which follow are based largely on the experiences of the farmers themselves. 132*

There are some ways, perhaps, in which storms such as those of 11th-13th October, 1957, may be beneficial, in filling the rock-cut cisterns, in clearing debris from wied channels, in removing accumulated salts from irrigated land and in transporting soil from karstland on to the terraces below, but such benefits, affecting relatively few farmers, would be more than offset by damage to the crops and lands of a far greater number. 132* 241 ● 731

Several types of damage can occur in times of torrential rain. Plants are damaged by direct impact, walls weakened by saturation of soil between the stones, clay masses slide downhill. Run-off causes sheet and gully erosion of the soil, washes away dams, walls and roadways and removes growing plants from the ground. In valley floors and low-lying areas, dams are silted up and water courses overflow to flood the more level land.

Fortunately, there were few standing crops to be damaged. The small part of the grape crop remaining to be picked was completely destroyed but cauliflowers and tomatoes were little affected. In many cases, however, sulla seed which had germinated was washed away and October was too late for re-planting. In some cases, vetches were sown as a replacement crop but, where the soil remained so wet as to prevent later ploughing, no crop could be raised until the following winter. Some farmers made fortuitous gains: one, near Kirkop, harvested more than nine hmiel of sulla from a vine field on to which seed had been washed. In the Wied tal-Pwales, melons, stored in the open were washed out to sea.

Farmers with flat land draining a large catchment area suffered severely from flooding. Very late tomatoes, grown to exploit improved marketing conditions, together with much of the autumn-sown potato crop were lost or severely damaged. This was particularly the case in Bur Marrad, where floodwaters stood for several weeks, and in the Wied tal-Pwales. Violent run-off caused extensive damage in several areas, despite the traditional careful terracing of steep slopes. Though sheet erosion in places removed an inch or more of the topsoil, the greatest damage was caused by gullying. Figure 17 illustrates one such case. The group of fields shown here lies on a natural terrace formed by the Upper Globigerina overlain with Blue Clay, above St. Paul's Bay. The damage to these fields is a product of the rain falling within them, since they stand on a spur and were not affected by run-off from higher areas. Similar damage occurred in other sample areas of steep slopes, clay soils and maximum storm rainfall; at Mgarr, Rabat and Wied ta'l-Isqof. Fields lying in the path of storm drainage suffered damage of a different type as shown in Fig. 18. Retaining walls built across a valley floor were swept away owing to the absence of any sort of drainage channel. Similar instances were noted at Mellieha, Mgarr, St. Paul's Bay and Mqabba.

The worst damage naturally occurred in areas where steep slopes coincided with maximum rainfall intensity, i.e. in north and west Malta. Four hundred farmers submitted damage claims, of which 262 were accepted as warranting financial assistance. The latter group included 10 per cent of all registered farmers in the parishes of Mell'eha, Mgarr, St. Paul's Bay and Rabat and just under 5 per cent. in Mosta and Gharghur. Damage in other parishes was not considered sufficient to merit assistance.

It would appear that, in many parts of the Islands, a day's rain amounting to 3 inches is almost certain to lead to damage of the kinds indicated and since such rainfall occurs, in one area or another, at least once in every five years, more efficient drainage would appear desirable. There are, however, several conflicting factors to be taken into account. In drier years, the farmer wishes to limit drainage so as to obtain maximum soil moisture at the beginning of the dry season, while the hydrologist wishes to encourage percolation into subterranean aquifers (see p. 43). At the same time, valley floors, where damage is 132* 311

[Text Continues on P.69]

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

65

*132
131
241
134

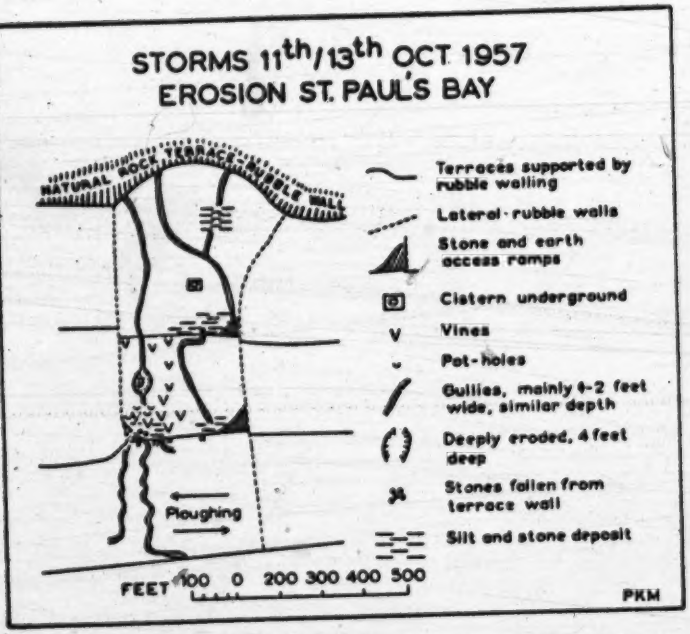


Fig. 17 Storms of 11th/13th Oct. 1957, Erosion, St. Paul's Bay.

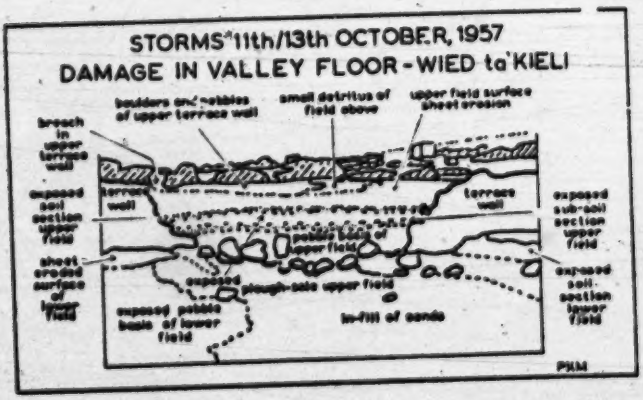


Fig. 18 Storms of 11th/13th Oct. 1957, Damage in Valley Floor, Wied ta' Kieli.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

THE MOISTURE REGIME OF THE MALTESE ISLANDS

The Maltese climate provides more moisture at the season when there is least demand for it, that is when the rate of plant growth is at its slowest. Conversely, when the potential for plant growth is highest, natural moisture is almost completely absent. Though winter temperature conditions allow the growth of a wide range of crops, some of the most valuable, e.g. tomatoes, would be unlikely to survive the winter season. Thus there have developed a number of types of crop management.

(1) Rain-fed crops are (a) planted before the onset of the autumn rains and watered artificially until adequate natural moisture is available, or (b) are sown mid-way through the rainy season when soil moisture is at a maximum. In all but the driest years, watering is unnecessary though, if applied, it can lead to higher yields.

(2) Crops dependent on soil moisture are generally planted late in the rainy season, when rainfall alone would be inadequate for their support. Land used in this way has generally been left fallow during the winter and repeatedly ploughed, thus keeping weeds down and reducing water loss from the bare soil. Even in average years, however, soil moisture will only support plant growth for a month or two and summer watering would be valuable but is not always possible.

(3) In irrigated areas, three crops a year are possible all depending to some extent on 'imported' water to supplement rainfall and soil moisture supplies. Areas in which this is possible, however efficient the methods used, are inevitably limited in extent.

Husbandry is largely controlled by considerations of this sort. Shallow ploughing is impossible until the onset of the rains has weakened hard surface crusts but is also difficult if the soil becomes excessively wet. The farmer thus hopes to cultivate and sow during the November dry spell (the Sajf ta 'San Martin) which often follows earlier rains. In all but a few years, this traditionally hoped for dry period does in fact occur.

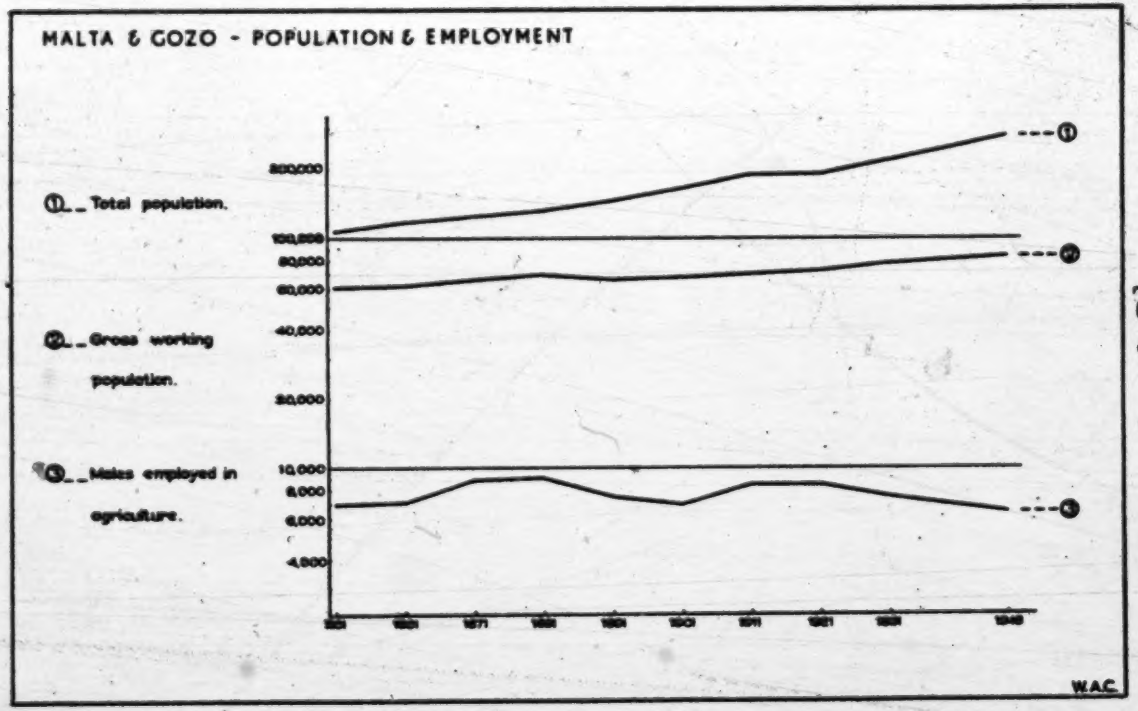
Ploughing is also carried out on a large scale in high summer when deep cultivation, with manuring, is carried out every fourth year. There seems to be no particular reason why this should be done in the summer months except that it is then that a large labour force is available. With mechanisation, labour supply is no longer a controlling factor but the practice persists. Certainly the movement of tractors and heavy ploughs about the countryside is most easy when the bulk of the land is fallow. The danger here is that deep-ploughed land may suffer soil erosion if there is an early onset of really heavy rain.

The timing and violence of the onset of the wet period are very uncertain. Generally the farmer aims at conservation of the early rains and does all he can to reduce run-off and to assist soil moisture recharge. If the autumn is wet, however, as in 1957, saturation of the soil and serious gullying may result from such traditional activities as the diversion of water from roads to fields by the construction of temporary earth dams and channels. A long term forecast of autumn weather would, if feasible, be of great value.

In the summer months, plant growth is often slow as a result of moisture deficiencies but there are obvious compensations. The ripening of vines continues unhindered, though the grapes may be damaged before harvest by early heavy showers. In spring and early summer, grains and legumes ripen and dry with little interruption.

There can be little doubt that current Maltese farming practices are adjusted to average conditions. It is the frequent occurrence of 'non-average' seasons which causes most damage (Figs. 25 and 26). Flexibility to cope with departures from mean conditions must be a major consideration in any plans for agricultural development.

1: Bowen-Jones et al. K-5 (1955-1958) 1961 EZ6 Malta EZ6



[p. 118-B]

* 175 161 241 464

Fig. 31 Malta and Gozo, Population and Employment.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

group. From 1851, when it composed 45 per cent. of the total, this element steadily decreased, absolutely and relatively. This general trend resulted from normal sociological changes consequent on a maturing of the whole economy and from the growing dominance of male employing service industries. At the same time, the preponderantly feminine cotton industry was steadily declining (see pp. 123 and 124).

One of the most significant indicators of economic change is that of male employment in agriculture (Fig. 31). During the first century of British rule, agriculture played no part in the economic expansion which was in train. Agricultural prosperity became a function of general prosperity and therefore to a large extent mirrored external fortune. Employment in the industry on the other hand, except for the shortlived cotton growing boom of the 1860's during the American Civil War, varied inversely with general economic activity. In Malta, as in most countries, it would be true to say that rising profits in farming benefited existing producers but failed to attract net incomers. On the other hand, population growth, the cessation of employment elsewhere, obstacles to emigration or even forces producing a return of migrants all periodically forced some workers back on to the land. Thus in the years between 1851 and 1871 while the population was growing more quickly than the slow but accelerating commercial activity, sheer population pressure and migration trends (16) forced the level of male agricultural employment from c. 7,000 to c. 9,000. During the Golden Years and the subsequent period of large-scale dockyard and public works construction numbers fell once more to c. 7,000 in 1901. Later stagnation in commerce and a decline in constructional work culminating in a severe depression (necessitating a Royal Commission) were marked by an increase in the number of farmworkers to 8,500 in 1911. These general fluctuations can be corroborated by reference to farm family histories and by changes in the availability of land. Behind the overall absence of numerical change and of those of secular variations we may discern some of the fundamental features of Maltese agriculture. By the middle of the nineteenth century, the better land had already been occupied by as many farmworkers as contemporary productivity could properly support. This number remained more or less constant, first because the economic and social climate was not propitious to the labour saving innovations which were sweeping over Europe, and secondly because the intake of land from waste did little more than compensate for losses elsewhere. We have a picture of a technically static, status declining and credit starved industry which from time to time lost some of its most vigorous and enterprising young workers or gained a flood of generally poor and semi-skilled labourers.

More true of Malta than of Gozo, this picture must be modified to accommodate regional differences and changes. Already in the eighteenth century, as we have noted, a cleavage existed in Malta between the *urbs* around Valletta, the Old City of Mdina-Rabat, and the rural communities. By the middle of the nineteenth century, this had developed into an embryonic form of the present division into urban, suburban and rural communities (Fig. 36). The social and demographic reasons for and implications of this are considered elsewhere (Chapter VI A) but the internal economic factors need present consideration.

Before the building of the railway in 1881, the tramways in 1905, and the later motorable roads, communication between villages and between country and town was relatively limited. Within those areas physically closest to what had now become the Grand Harbour the attraction/repulsion effects on agricultural employment were most strongly felt. On the eastern urban fringe, in the Żabbar area, these fluctuations were very violent and indicative of too complete reliance on two simple forms of economic activity, dockyard work and farming. On the western fringe the expanding economic and political functions of the nuclear *urbs* overwhelmed old villages such as Birkirkara and created new townships such as that of Hamrun in a more complex urbanisation (Figs. 32 and 39). Fluctuations in agricultural employment still occurred but these were less important than the steady decline in the total.

The changes outlined above proceeded slowly but at an accelerating rate during the second and third quarters of the nineteenth century. By 1871 popula-

[TEXT CONTINUES ON P. 123]

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

Islands and could thus provide continuity in the interpretation of the records of the many field workers.

The survey parties worked in the Islands during the months of March and April in each of the three years 1955, 1956, and 1957. In March-April and August-September 1958 the authors themselves carried out final checks. During the Spring periods, the use of fairly large teams of observers, between six and eight in number, enabled the work to be concentrated at a critical time when the widest range of crops and of activities are to be seen. Summer vegetables and cotton are the only major crops not then in the fields and this difficulty was overcome by the enlistment of the other Durham research workers permanently residing in the Islands and by a summer visit of one of the authors. Objection might be raised to the spreading of the survey work over more than one season. The difficulty of completing such work on such a scale during one short period of time is not a sufficient answer. The real answer is that the time spread did not matter. The miniscule field pattern and the further subdivision into separate plots, both amply illustrated in the examples shown here, mean that crop changes from year to year merely result in the re-shuffling of tiny pieces of an intricate mosaic. The variety of crops grown and identified (see below), the relative uniformity of crop sequences and the individuality possessed by the various regions, further remove any deficiencies apparently implied by this particular method. The spreading of the fieldwork over a number of years did in fact allow both the checking of methodological validity and the carrying out of subsidiary pieces of work. For example, sample areas were surveyed during each of the four years, thus giving an accurate picture of crop sequence and rotations, as well as a check on short term change.

The following crops were individually identified in the field: sulla, wheat, barley, vines, fruit, olives, potatoes, onions, tomatoes, marrows, other vegetables, broad beans, peas and vetches. In addition, uncropped land was recorded as waste, fallow, rough grazing or tilled. In several cases, e.g. vegetables, fruit and vetches, a note was made of the actual variety of plant being grown, e.g. cauliflowers, artichokes, apples, peaches, lemons, *gilbiena*, *zozfa*, *widna*, etc. Coloured maps on a 6-inch scale, showing the 18 different crops and uses of land have been prepared. Cost of publication prevents their reproduction here, but they have been used in the preparation of this volume, particularly in Chapters VII B and VIII. The Land Use Maps (Figs. 69 to 98) show the distribution of individual crops, though the range distinguished has been somewhat curtailed. Wheat and barley, tomatoes and marrows, the various vegetables, broad beans and peas, and vetches and minor fodders have respectively been combined into single maps although the accompanying text notes regional variations. These 14 distribution maps in black and white have been prepared by reduction from the coloured 6-inch series. They were originally prepared on a 2-inch scale, and were thus directly comparable with the standard 2-inch topographical sheets and with the 2-inch geology and soil maps. The distribution maps, together with the coloured 6-inch are at present stored in the Durham Geography Department and it is hoped that the former at least will eventually be published on a 2-inch scale. The amount of cartographic work involved has been at least as great as that done in the field, and, since it was carried out by the authors alone it has consumed a considerable amount of time. However, it is felt that the labour has been justified in that only by accurate cartographic representation and by deduction from the maps can easy generalities be avoided. The long term character of the project also made easier the establishment of friendly contacts with local individuals, both official and private, whose help is sincerely acknowledged, and at the same time allowed the authors to amass a background knowledge of the Maltese Islands which has been invaluable in their interpretation of the agricultural landscape.

Note. A preliminary report - 'Agriculture in Malta, a survey of land use': was produced by H. Bowen-Jones and J. C. Dewdney, at Durham, in 1955.

B. Crop Distributions

FIELD CROPS

CEREALS - WHEAT and BARLEY (*Qamh and Xgħir*)

As the land use maps show (Figs. 71 and 72), cereals are grown in all regions of the Islands. Of the grains, wheat and barley alone are of importance. Some maize and millets are still grown and a few fields of sown oats were observed. *Mixta* - a mixture of wheat and barley - is now rare, although self-seeding produces some mixtures difficult to distinguish except by close examination. The practice of sowing spoilt or 'bottom of the bag' grain on odd patches of soil that would otherwise bear nothing also produces unexpected results.

Many different varieties of wheat and barley are grown - naked and bearded, short and long-awned, with short, stiff and long, weak culms. So-called 'Maltese' varieties such as *Qamħ ta'Susa* and *ta'Bla Sifa*, have little homogeneity except that the wheats are all hard, bearded types. Introductions are mainly of durums from Canada. The local barleys are poor in type - short-eared, small-grained, 'dry' varieties, although the poor results are obviously partly explained by their use for cropping the harsher lands. The new barleys are also mainly of North American origin and selected for early maturation. This latter characteristic is especially of value in an environment in which barley may dry and shatter rather than ripen - this has been observed even as early as March. In so far as barley is a residual land crop, however, then innovated varieties would seem to be difficult to establish and popularise - especially since the farmers on the poorest land are the least able to indulge in experiment.

That the importance of cereal cultivation remains so great, in spite of growing dependence on imported bread grains, seems strange at first sight. Information supplied by local mills suggests that human consumption of local cereals is very small, but quantitative estimates cannot accurately be made at present. Little is known of the relative importance of domestic subsistence on the farmers' own grain crops. Davy, in 1842 (1), and witnesses before the Royal Commission of 1911 maintained that production was mainly for domestic consumption. This is still obviously true for some vegetable crops and poultry but, in the present period of continued transition from peasant farming towards commercial farming, is difficult to evaluate for cereal production. For general purposes we may however presume the validity of the assumption that Maltese-grown grains have become less important for human food. No significant amount, it is generally agreed, is used for distilling and brewing. The former is severely restricted by law, and the latter by the general unsuitability for malting - unevenness of sample is a major difficulty - of local barley. For use there then remains only production for livestock fodder - particularly for horses and cattle, although the value of a grain ration for pigs is becoming more apparent with the introduction of better breeds such as the Large White. Given this situation, the comparative ease of grain-growing in the usual rotations practised, and the difficulty of finding alternative crops for some hardland areas, results in the survival of what has been called *grande culture* - land use of which would seem to be, in many regions at least, unnecessarily extensive.

The matter of rotation is fairly simple. Debono (2), in 1911, pointed out that, after previous manuring and vegetable growing - 'there is only the sowing and the crop comes by itself. So that whether there be duty or no duty, wheat will always be cultivated here in Malta, unless there is a revaluation in the rotation of crops'. A contemporary example may be taken from a farm at Iad-Dahla. On the poorer land, wheat is grown alternate years with sulla. On the better land, potatoes and vegetables are the main crops and wheat, sown incidentally as a rotation crop, then gives yields of 25-28 cwt. per acre - double that on the other fields. Any change in the proportion of wheat to other crops under this system of farming could only be a consequence of an agricultural revolution.

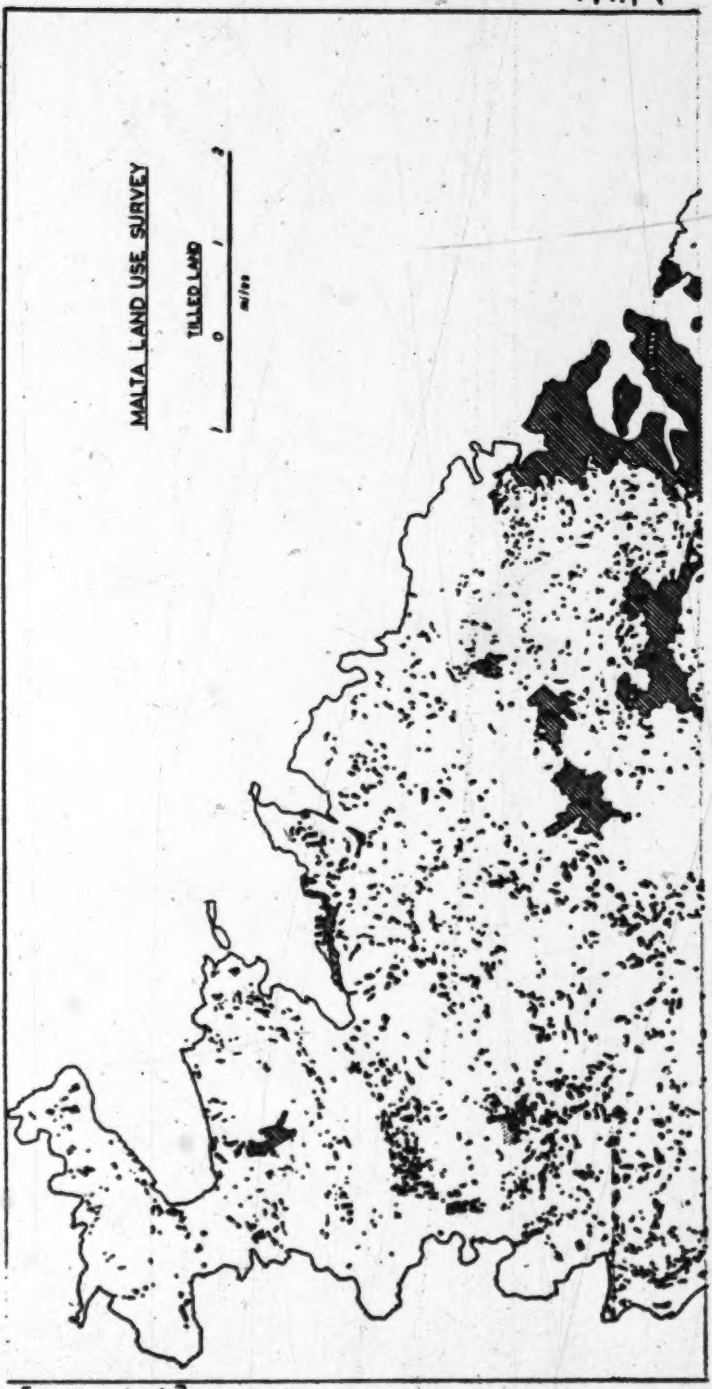
More complex is the importance of the grains as hardland crops. Basically, wheat and barley are dry farming crops in Malta. Without irrigation, even away

[TEXT CONTINUES ON P. 197]

1: Bowen-Jones et al. K-5 (1955-1958) 1961

EZ6 Malta EZ6
Malta

*311
102
241



[p. 224-A]

Fig. 91 Malta: Land Use Survey: Tilled Land.

1: Bowen-Jones et al. K-5 (1955-1958) 1961

EZ6 Malta EZ6

Malta

317
102
241

Fig. 91 Malta:
Land Use Survey: Tilled Land.

[p. 224-B]

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

Various types of location may be observed. In Malta (Fig. 89) there are, first, the main irrigated vegetable zones of the Wied tal-Pwales and Wied tal-Mistra where cultivation is carried out on a commercial scale. A great variety of crops are raised, but artichokes assume a particular importance. Secondly, in the Bur Marrad district of the Wied il-Ghasel, there is considerable specialisation, particularly in artichokes and to a lesser extent in brassicas. Thirdly, there is the group of districts around certain settlements with urban-fringe market gardening. Near Żabbar, mixed vegetables, predominantly brassicas, are cultivated in many small plots, often worked by part-time farmers. Around Qormi, the possibility of irrigation has encouraged a very considerable spread of market gardening which further extends into Hamrun. Near Rabat, a similar, smaller zone is also of some importance for mainly non-brassica crops. 31 1* 244

Lastly, a belt of vegetable cultivation occurs on the high central platforms between Żebbug-Siġġiewi and the Rabat-Dingli upland. In Fig. 89 the importance of this zone is not fully illustrated. Fig. 91, showing tilled land during the survey period, gives an indication of the considerable area which is, later in each year, devoted to summer vegetables. This is pre-eminently the area of brassica cultivation with cauliflowers of particular importance. The reasons for this are not completely known, but seem in the main to reflect climatic and soil advantages (see Chapter VIII).

In Gozo (Fig. 90) the range of vegetables grown is rather smaller than in Malta, and cultivation is much more closely confined to the settlement fringes. There are some exceptional districts, such as the Wied tal-Mistra in the north-east and the small depression lying north-west of Victoria, where good supplies of water have encouraged commercial specialisation.

TILLED LAND (Figs. 91 and 92)

Land shown in this category is that which either had a prepared tilth in readiness for further sowing and planting or had been cleared for summer fallow. This would follow early harvesting of sulla, *ferrana* and potatoes or a long fallow period. Areas where tree-crop cultivation is widespread are obviously of little significance in this category. Classification problems arise in that cleared land unsuitable for summer cultivation (for reasons of environment or rotation) is, under Maltese conditions, difficult to distinguish from land about to be planted. However, it can be stated with some degree of certainty that in Malta the main belt of tilled land west of Siġġiewi and Żebbuġ represents land prepared for summer vegetable cultivation (see Chapter VIII). In Gozo, much of the tilled land of the west is prepared in readiness for summer cotton growing. 31 1* 24

COTTON (*Qoton*)

The cultivation of cotton, which was widespread in the Maltese Islands from Classical times to the mid-nineteenth century, has been slowly reviving in Gozo during the last few years. 31 1* 248

This is only the annual crop of which the seasonal range fell completely outside the survey period. Cultivation is most considerable around Żebbuġ, Għarb and San Lawrenz. Environmental conditions are far from optimum and the future of cotton growing depends largely on the efforts and interest of one textile firm and of the Government.

FALLOW LAND - Malta (Fig. 93)

Land classified under this head is that which neither carried a crop nor had a prepared tilth but which did not appear to have been unworked for more than about a year. Some such land is inevitably in the first stage of abandonment, but other areas have remained uncultivated for a variety of other reasons connected with quarrying, tenurial disputes, demands of the Defence Departments and various types of farming hazard. 31 1* 241

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6
Gozo

*311
102
241

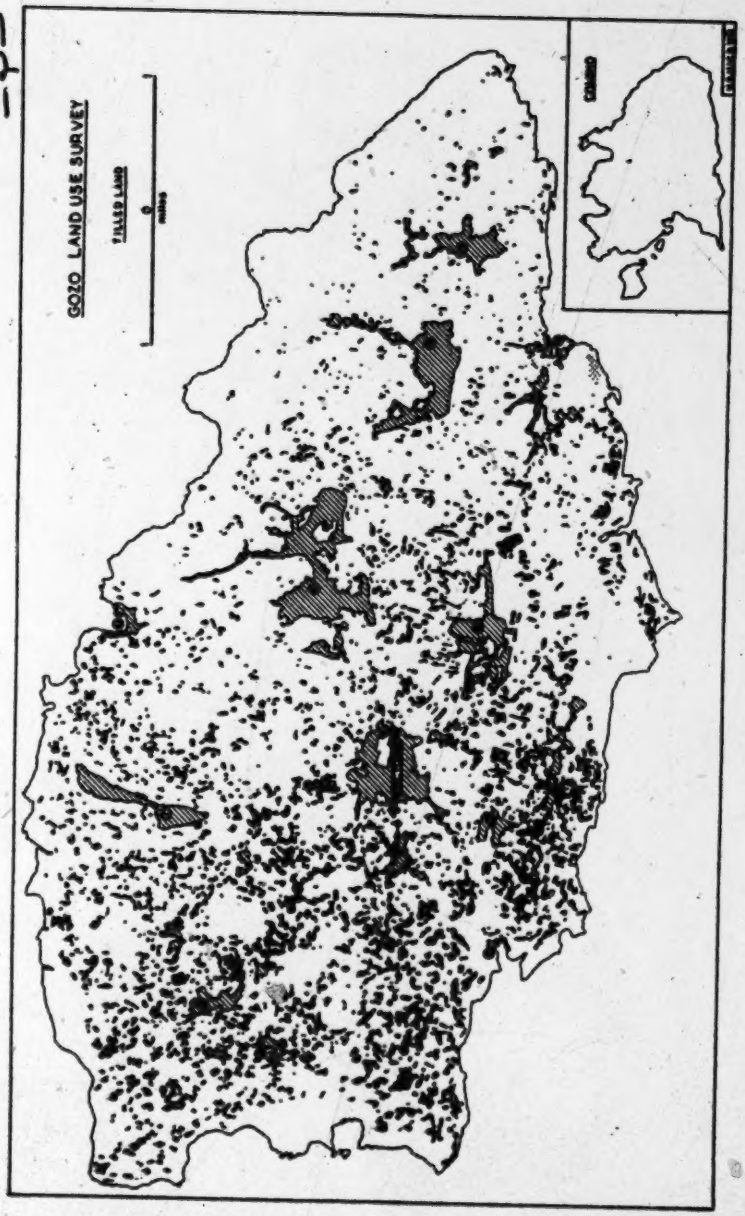


Fig. 62 Gozo: Land Use Survey: Tilled Land.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

FALLOW AND ROUGH GRAZING - Gozo (Fig. 94)

As noted above, land classification in Gozo presents special problems. The widespread occurrence of self-seeded sulla, very often heavily weed-infested, and abandoned land still carrying (on the thicker soils) fairly dense herbaceous and graminaceous vegetation, is not an indication of completely waste land. This intermediate category is a reflection of the lesser intensity of direct pressure on agricultural resources and the greater importance of field grazing in Gozo.

311* 241 [233]

WASTELAND

All areas in which a soil mantle has never been developed or from which it has been wholly or partially removed by erosion, together with land which has obviously not been cultivated for some years, have been classified as waste. Thus, karstland as on the Marfa Ridge, the clay badlands of Ghajn Tuffieha, the abandoned terraces of Wied il-Kbir and the more recently neglected fields of il-Wiggia in Wied tal-Pwales, all fall within this category. Earlier classifications of wasteland in the Islands have attempted to postulate completely unutilised barrenness. This, on the one hand, leads to an underestimate of the extent and rate of abandonment, a feature of crucial importance, and on the other over-estimates the absence of value: much wasteland is in fact utilised for *xagħra* grazing.

311* [233]

Figs. 95[1] and 96[2] indicate the magnitude of wasteland in the Maltese Islands. Gradient as such has little effect, parent rock, water supply, accessibility and exposure all being a good deal more important. The Lower Coralline exposures are very largely waste, a result of the slow rate of physico-chemical disintegration of this massive series. The other major wasteland areas are associated with special conditions of aspect and altitude. The fact that they are largely developed on Upper Coralline rocks results not from any parent-rock intractability but from the great height at which the strata of this series generally lie and from shortage of water. As noted in Chapter III, Terra Rossa development can give very productive areas.

In Malta, the inter-relationship of aspect, topography, geology and soils is well exemplified in the northern part of the island. The structural and topographic grain is transverse to winds blowing from directions between north and west. As noted in Chapter II, these winds bring high humidity and low temperatures, during the winter season. Ecological conditions of relative bleakness inhibit vegetal growth and soil formation except in sheltered depressions. The effect on land use has been to bring the 'karst line' down to sea level on the exposed Marfa peninsula, from which it ascends south-eastwards towards the more sheltered interior ridges. The level of cultivation rises progressively higher until, on the Santi-Bingemma plateau, it extends over the whole upland area. Secondary controls are exerted by details of aspect, altitude and spring-line development. Thus Bajda Ridge, of intermediate height and lying in the lee of Mellieha Ridge, forms one of the most continuous belts of wasteland. Structurally an anticline, and too small to contain an appreciable body of water or to allow doline formation, the Bajda Ridge is unlikely ever to allow a more intensive form of land use than that provided by the experiments in afforestation now in progress.

Comino and Cominotto, which are fragments of a shattered Upper Coralline anticline, are almost entirely waste. A few patches of cultivation in sheltered positions are all that remain of a never very extensive tilled area. Remoteness and exposure are sufficient to explain the present condition of these small islands.

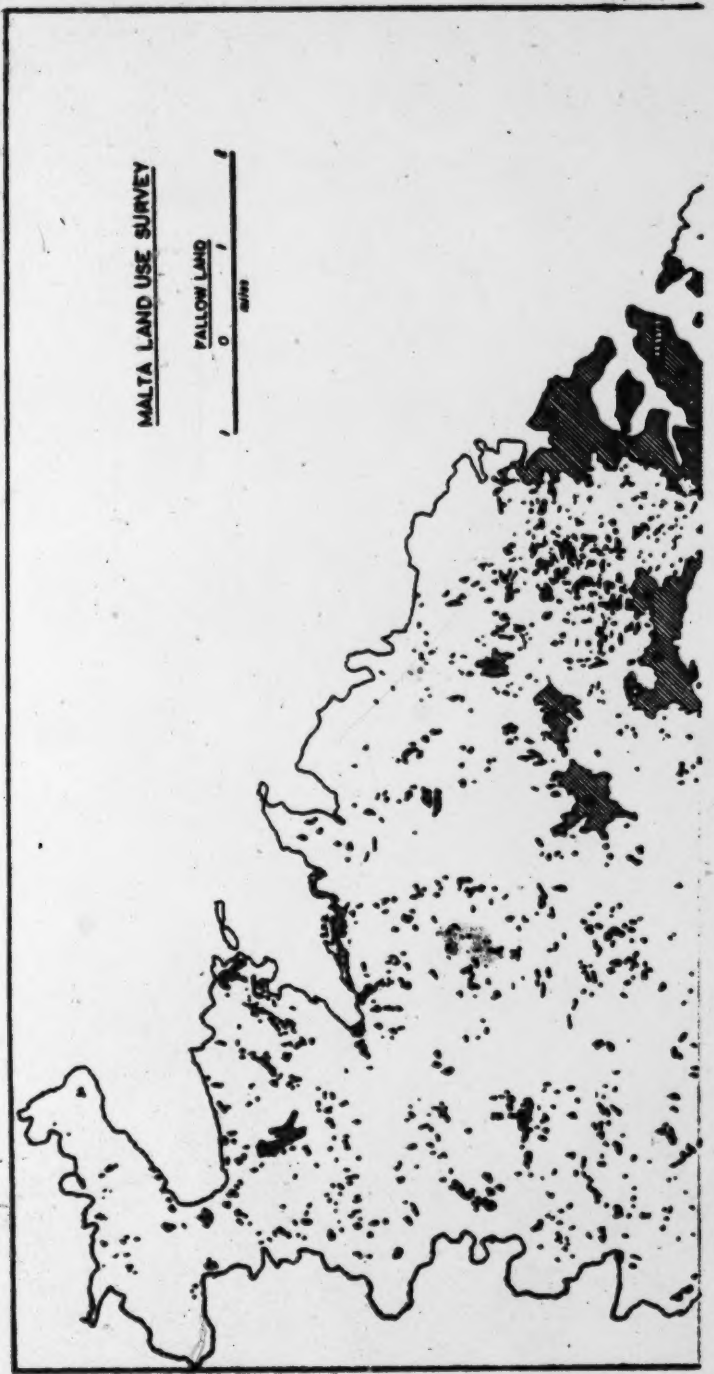
Dissection and consequent exposure of the Lower Coralline have been the major processes giving rise to wasteland in Gozo. This is clearly exemplified in the fault-shattered zone of Qawra, id-Dwejra and the Wied Ilma as well as in Wied ix-Xlendi. Along the north coast, steep cliffs fall to a Lower Coralline platform which is reflected in an analogous belt of wasteland, while the barren ta'Cenc hills are also developed on rocks of this series. In the north-east, wasteland covers the higher and more exposed *qortin* areas and scattered stretches of waste occupy much of the steep and tectonically disrupted eastern

1, 2, 4, 5 [See pp. 230 A & B and 231 -- Analyst]

[Text Continues on p. 233]

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6
MALTA

*311
102
241



[p. 228-A]

Fig. 93 Malta: Land Use Survey: Fallow

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6
Malta

Fig. 93 Malta:
Land Use Survey: Fallow.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6
Gozo

*311
102
233
291

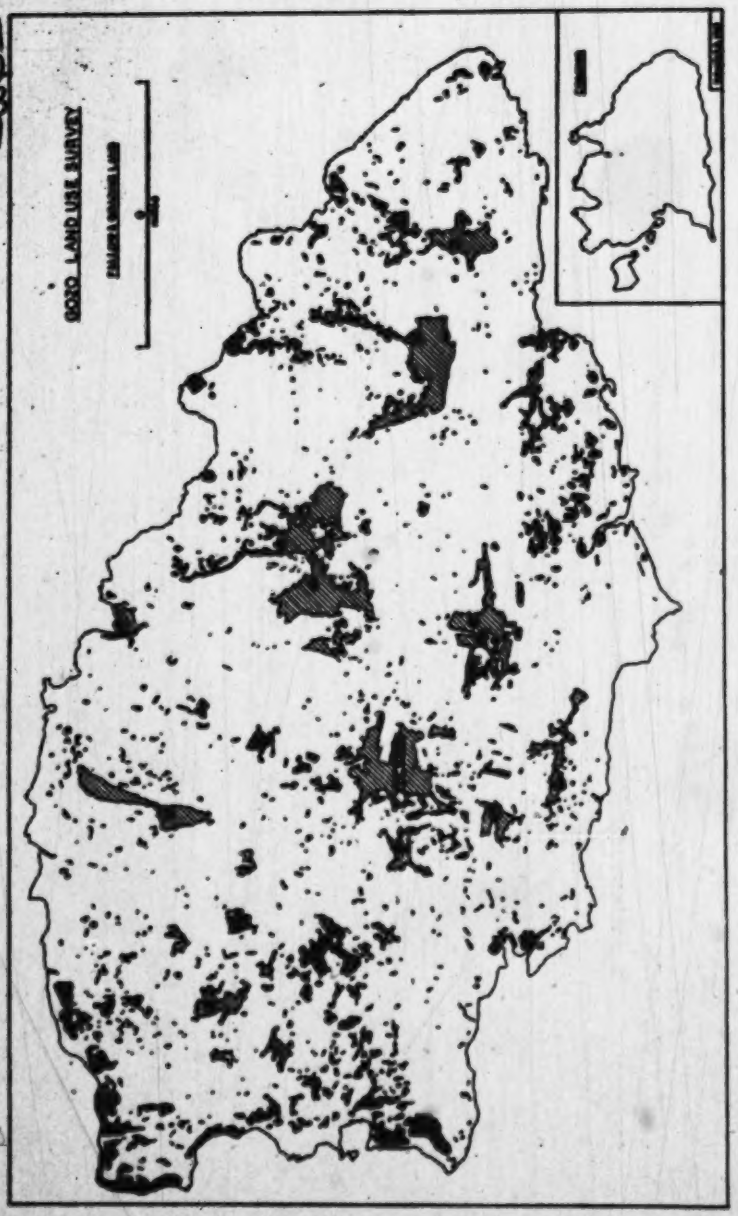


Fig. 84 Gozo: Land Use Survey: Fallow and Grazing.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

Chapter IX

A. The Maltese Farmholding

For our purposes here we shall define a 'farmer' as 'the owner or holder of land which he cultivates', but will add the limiting clause, 'as the principal person of an agricultural enterprise'. There may be joint owners or holders but normally, even where a *'communio inter fraires'* has been established on the death of a parent landholder, one person will assume responsibility for the control of the enterprise. He is the farmer. His brothers, sisters, wife and children, if they assist in working the land, together with the non-family labour which he may employ are the farmworkers. The inter-relationships of family and work can, however, be much more complex than this simplification may imply.

The land worked by the farmer and his group of helpers we shall term the 'farm holding' or 'farm'. 'Holding' here implies simply the land held by the farmer, and is not used in a synonomous sense with the legalistic 'tenement'. There are excellent reasons for maintaining a clear distinction between the two terms for, on the one hand, a holding may consist of many different tenements held by the farmer of as many landowners, and, on the other, a legal tenement may be occupied by more than one farmer. Confusion may also arise, in this connection, from the fact that a holding may contain freehold, as well as various types of leasehold land. Within each holding there exists a loosely-knit collection of plots, which, through accident or design, have come to be in the occupation of one individual or group. Because of the geographical isolation of the plots, most of the holdings might, descriptively, be termed 'fragmented holdings'. Such holdings need not necessarily have acquired this characteristic through the process of *parcellement*; that is by splitting up of a holding into a number of non-contiguous plots. No generic connotation, therefore, should be attached to the purely descriptive use of the term 'fragmented'. In the following examination of the Maltese farm, this distinction between descriptive statements and analyses of processes will be maintained.

The physical size of a farm may be considered as the total area of land over which the farmer exercises sole rights of occupation for agricultural purposes. Fortunately, in the Maltese Islands, the matter is not complicated by problems of definition concerned with common land, as communal holding of land is effectively absent. But other problems do arise, since land is so variable in quality, ranging from fertile irrigated lands to soil-less karst, with many gradations in between. Most farms include land of more than one category and, especially in the north and west of Malta and the hard-rock areas of Gozo, many farmers hold rights over waste-land which from the cultivator's point of view is useless.

The average size of farms has proved an elusive statistic for many writers. A figure of 3.7 acres was given to the Royal Commission of 1911-12. From 1921-36 the Blue Books continued to advertise the patent fallacy that only 236 holdings were in the 0-10 acre size range and that 10,864 holdings contained from 11-50 acres of land. However, in this context any average figure is very largely meaningless except for purely comparative purposes. The range is enormous; holdings less than 1 *tomna* are not considered as farms, but there are many holdings only slightly larger than this, while at the other end of the scale, farms of 200 *tmien* are not unknown.

Much of the record concerning farm sizes is incomplete and, although the present response rate of over 97 per cent. to the annual Agricultural Census conducted by the Central Office of Statistics is excellent under the conditions prevailing in the Maltese Islands, it seems probable that earlier returns lagged far behind in this respect. Of the various sources, the Farm Register is probably the most accurate. It began with a Census in 1943 and was checked against another in 1944; for several years its details were consolidated by field survey,

[Text continues on P. 291]

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

*423

Table 34. Number of farm holdings.

	Malta	Gozo	Malta and Gozo
1891	6,307	2,965	9,272
1901	6,106	3,072	9,178
1950	9,600	4,000	13,600
1952	9,440	3,815	13,255
1955	9,011	3,674	12,690
1958	8,774	3,441	12,215

The fluctuations during the post-war period are not considered to be significant, since the 1950 figure was an estimate, and something like 750 farmers are known not to have co-operated in 1955.

*423
●241
969

Some further indication of the long-term increase in the number of holdings is given by the Census statistics of Agricultural Occupations for the years 1842-1931. In those years, persons working on the land were grouped in the following categories:-

Table 35.

	1842	1851	1861	1871	1881	1891 1901 1911 1921 1931
A	Farmer do. (Proprietor)			C Farmer	Peasant Proprietor	Farmer, cultivator of land
B	Farmer do. (Tenant)					
D	Labourer in the field				E	Farmer's relative assisting
					F	Agricultural Labourer

It would appear from the context in which they are used that the classes A and B of the earlier years were intended to comprise the same groups as class C, of 1871 onward; also that these represent the number of cultivators working land on their own account who have no other major occupation.

Class D was subdivided in 1891 and later years to take special account of those farm-workers who were close relatives of the land-holder. There is no close equivalent in the post-war material for this group, for the 1948 Census takes no heed of the family relationships, while the Departmental enquiries make inadequate reference to the admittedly small group of farm-workers who are not members of landholders' families.

If the classes A, B, C and D, E, F can be presumed to be comparable for the whole of the period, even to a wide degree of approximation, then a general upward trend in the numbers of landholders, balancing a downward trend in the number of farm-workers, is apparent (Table 36).

Short-term variations in these trends result, at least in part, from misclassification of persons as between the two groups, but of greater significance were the succeeding slump and boom conditions in Maltese agriculture, which in turn are to be related to contemporary, but opposite, fluctuations in the general economy of the Islands (Chapter V A). A fall in the number of full-time farmholders need not imply an absolute recession from the land, but rather that numbers of farmers are taking alternative employment, which, for a period, becomes their principal occupation. In the meantime the land is being worked on a part-time basis, or by the men's wives and families.

423*
241
464

Table 36. Agricultural occupations - male and female.

Farmholders, farm-workers, and total workers on land (excluding sheep and goat herders).

		1842	1851	1861	1871	1881	1891	1901	1911	1921	1931
Farmholders	%	27.2	19.7	17.1	30.2	19.1	37.4	36.4	47.9	41.1	47.3
Farmworkers	%	71.9	78.4	80.9	68.1	79.5	61.4	60.4	51.4	56.9	51.1
Total workers on land	%	100	100	100	100	100	100	100	100	100	100
	000's	12.2	13.4	10.8	15.4	15.3	15.3	13.8	15.1	16.2	13.6

The general increase in the numbers of farmholders could have arisen entirely within the class itself, by the repeated re-allocation of land to succeeding and larger generations. Similarly the full decline in the numbers of farm-workers may be related to increased alternative employment or to emigration. However, case-study material seems to indicate that many families whose members had traditionally been landless labourers, working in fields, quarries or industry, as wages rose and fell began to acquire a direct interest in the land, thereby moving from one class to another without affecting the total agricultural labour force. Such a family history is examined in detail later in this chapter.

Another factor influencing the numerical increase and progressive reduction in size of holdings has been the long-term expansion of part-time farming. In this sector data is particularly limited and of dubious value. Table 37 consolidates all the relevant material.

Table 37.

	1891	1901		1936
'Farmers'	5,727	5,038	Full-time farmholders	4,706
'Part-time Farmers'	2,263	500	Part-time farmholders	5,337
			Other farmholders	1,368
Total	7,990	5,538	Total	11,411
Number of holdings	9,272	9,178	Number of holders	12,840

The discrepancies in the earlier two years between the numbers of farmholders and of farmholdings arise from the differing bases of the material, and because the number of holdings includes returns by the 'owners of fruit gardens and field labourers with very small amounts of land'. Similar explanations apply in 1936. These doubts notwithstanding, it is quite clear that a major part of the increase in holdings is made up of holdings farmed on a part-time basis; the number of farmholders principally dependent on agriculture having declined meanwhile.

423*
311

Earlier in this chapter, the point was made that most farms contain land of various types. Apart from virtually non-productive waste land, the main distinction is between dry land and irrigated land. The distinction is not always very clearly set between the two groups, since land can also be considered as 'semi-irrigated', as in the Farm Register. However, this type of land, watered from rain-filled cisterns perhaps twice or three times per season, cannot compare in output with the perennially irrigable land. The crops on this latter type of land will be watered at ten-day intervals for a period of six or more months. Semi-irrigated land is grouped by the farmers themselves with dry land as *raba bagħli*, while perennially irrigated land they refer to as *raba saqwi*. So long as data is based on the agriculturalist's own criteria there seems little danger of confusion.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

291
291
992
351

Plate XIX. Tillage - traditional style.

291
291
409
351

Plate XX. Tillage - new style.

B. Cultivation Equipment and Tillage

Of the implements observed in Malta, the traditional types of plough, hoe, sickle and harrow are of the same genera as those to be generally found in the Mediterranean region (Fig. 140).

Ploughs are of the *Aratrum* or *Ard* type, steel tipped wooden wedges, devoid of cutting edges and having very restricted powers of furrow making or inversion - *moltriel*. None of those observed had lateral 'ears' or 'wings' but apparently ards thus equipped are occasionally used. There are various sub-types with differing arrangements of beam, body and handle but no constant rational relationship between these sub-types and local environments could be observed. Prices range upwards of £4 10s. 0d. Iron or steel tips for the body cost about £1. One interesting modification of the plough is manufactured at Żurrieq. On top of the basic beam and body is fitted a movable double mouldboard of which either or both breasts can be brought into operation at any one time. Ridging and left and right furrow inversion are therefore made possible. For those areas where furrow inversion is practicable such a cheap, light multi-purpose implement would be very valuable, and the development of such improvements might well be encouraged by official approbation.

Hoes are manufactured in four main types. The heavy spade type, the *Łappuna*, is generally used for soil trenching in preparation for manuring. The effort involved tends to restrict its use. The small, single tined, wedge-shaped hoe, the *Mgħażqa* or *Lexxuna*, is a general purpose implement that is replaced under damp and cohesive soil conditions by a forked, two-tined variety, the *Kroxun*. A three-tined hoe is often used, together with the ard, for potato lifting. In general, each cultivator possesses a selection of different types of hoe, necessitated by the variety of manual operations he usually has to perform and made possible by the reasonable prices of the implements (prices range from about 16s. for the single-tine, to 18s. to £1 for the spade hoe).

The sickle in general use is a small, smooth-edged type costing about 12s. 6d. The small number of sickle types observed may result from the widespread practice of pulling rather than cutting green fodder. Traditional harrows are almost invariably of the Mediterranean and Asiatic type, harrows cum levellers and seed coverers. Those observed were triangular and stone weighted. When manufactured for the purpose they were usually constructed of ash and had removable tines. Without metal tines, the cost is about 50s.

These implements, of which illustrated examples are given (Fig.140), have already to some extent been displaced by imported newer types. Most farmers who possess fields which are at all accessible to tractors now periodically hire contractors to plough the land with mouldboard or disc ploughs and even, in some areas, with deep digger-ploughs. Where plots are small or the terrain difficult, then rotary cultivators are hired or purchased. These latter machines, in spite of their relatively high cost - usually over £200 in Malta - are amazingly popular and are more and more replacing the *ard* and the hoe. The reasons for, and implications of this popularity are examined below.

The spade proper is hardly ever used, and its absence is associated with the reasons for the survival of the *ard* plough. Small, light, flexible, metal harrows are to be found. Entirely imported, their only advantages are their flexibility on rough ground and ease of draught. They are, on the other hand, more easily damaged and more difficult to repair than their wooden prototypes. Other equipment includes a great range of fixed and movable adjuncts to farming, all but one class of which are constructed rurally from local materials. The exceptional group is that connected with irrigation and includes windpumps and small diesel engines. Threshing and winnowing, traditional style, needs no more than a rock or *lorbe* (beaten earth) floor and asses or horses for trampling, baskets constructed of local cane, and simple wooden winnowing forks. Of recent years, centralised threshing by contractors' machines has almost entirely displaced the older method in all but the more remote western regions. Canes, grown in slightly marshy conditions in wied floors, provide the raw material for wind breaks, covered forcing beds, crop supports, etc.

for wind breaks, covered forcing beds, crop supports, etc. Livestock harness is simple in type consisting of head harness and collar. Working bullocks, now rarely used, are also equipped with collars for traction but the guiding reins are attached to the horns. Country carts are unsprung, wooden frames resting directly on the metal axles. That the ruggedness of their construction is only equalled by the toughness of the draught animals is evinced by their presence on places such as Dingli Undercliff, or the cliffsides of the Wied il-Luq (Buskett).

The solidly built stone huts or *orfa* that are to be found on most holdings may be regarded as part of the farmers' 'equipment' rather than his habitation. The simplest and most numerous are simple one-roomed cubes, some five yards square, strongly constructed, usually of worked stone blocks with wood and *torba* roofs. These 'blockhouses', for such they appear, serve as storehouses for implements and crops, for guns and birdcatching equipment, as well as for shelter during the 'siesta' hours and bad weather. Their cost in construction labour, and the pride that does into the simple furnishing of what is the farmers 'den', as well as the deceptive appearance of dispersed settlement that they give, suggests that further investigation into their origins might prove valuable. In general terms, they seem to be a natural response to the marked concentration of settlement in the casals. They are far less numerous in the western region of more recent and dispersed settlement. The larger, two-roomed and two-storied types are used mainly as summer working residences, when a whole family may move out of its casal to the main holding.

These implements and types of equipment are one facet of the complex of traditional cultivation techniques - techniques based on the intense and continuous application of uncosted hand labour. A brief examination of the working characteristics of some of the implements is a necessary introduction to a discussion of general cultivation techniques.

The *moħriet* (Plate XIX) is used as an animal-drawn hoe rather than as a plough proper. It is light and can be carried by the cultivator along narrow field paths and across rugged terrain. Its negotiability is limited only by the ease of access demanded by the draught animals. The 'rotavator' (Plate XX) alone of modern mechanical implements can rival it in this respect. On coarse soils, often only a few inches deep, cross tilling by hoe or *ard* seems perfectly satisfactory for tilth making. A vertically applied tool such as the true spade cannot be utilised in such soils, while all but the simplest mouldboard ploughs are too clumsy for use in small terraced fields. Both *ard* and hoe are used in garden rather than field style and their only disadvantages lie in the slowness of the work performed. Here lies the especial advantage of the rotavator that can, under reasonable conditions, be used for tilling six *tmien* of land a day as compared with about two or three for the *ard* and one for the hoe. (Figures are necessarily approximate averages.)

Cultivation techniques and the farming landscapes which they have produced are now in a critical stage of development. For millennia, a slowly increasing population has been utilising the natural land resources more and more intensively and also supplementing them by artificial works. Until the early nineteenth century, social and tenurial obstructions to full land use on the one hand, and wealth derived from the overseas possessions of the Knights of Malta on the other, little affected the basic land hunger of the rural community. During the period of British occupation, however, externally derived income has brought with it more and more non-agricultural activity. Opportunities for non-farm work have increased and so has socio-economic dissatisfaction with arduous and limited rural life. The stage has now been reached at which land reclamation and land abandonment, intensification of effort and neglect, are proceeding simultaneously. An examination of those landscape features which are products of farming techniques suggests that this stage is now critical.

Land reclamation and the extension of the cultivable area are still going on. At several points on the Delimara peninsula, material is being carried from the cliff foot and from old huts and dwellings and spread over the existing thin and discontinuous soil cover. On this, sulla as a soil building leguminous crop

[See page 306 -- Analyst]

242 the heads of Wied Babu (219) and in the Santi Gap (57) in Malta and in the West-
311 Central Region of Gozo. In such topographical pockets, the building of soil trap walls is sometimes extended to form walled orchards as at id-Dahla and the head of the Wied ir Rum.

241 When we turn to observation and consideration of cultivation reactions to
311 minor topographical and geological features we are further reminded of the special relationship between tillage techniques and the soil. Bearing in mind the points noted in Chapter III B and the picture we have drawn of the physical and social environment in which Maltese agriculture has developed, we are forced to the following conclusions.

The economic necessity for the utilisation of virtually all land resources and indeed for creating some of them, together with the physical need for basing all farming practice on soil and water conservation techniques, have until very recently rigidly controlled the details of tillage. Fragmentation, a perfectly rational response to circumstances, has intensified the physical sub-division of the land. The majority of fields in Malta and Gozo cannot easily be worked except by small highly mobile implements. In the conditions described above and in a climate which makes possible a great crop range, implements must also be capable of a great diversity of application. In order to keep up the terraces, work the fields and succeed in maintaining and even increasing the area of cultivable land, the cultivator has been committed to unremitting and arduous manual labour. His basic tool is the hoe, his natural development of it the non-soil-inverting *ard*-plough.

The recent removal, by the creation of new real and psychological opportunities, of part of the pressure that has long kept the farmers on the land has altered the traditional picture. Cartographic evidence of the 25-inch to the mile maps, surveyed in the 1880's and 1890's, shows that since that time little waste-land has been improved. The only known large-scale change in field patterns occurred during and after World War II in the central lowlands of Gozo as the result of airfield construction, but holding fragmentation has re-imposed sub-division on the landscape. Occupational statistics and case-study evidence all point the same way. As a result of this release of pressure, land neglect and abandonment are now irregularly removing the extremes of control of cultivation. Even more important, Malta has been affected by the new evaluation of tillage techniques which has characterised so much of the world. Under modern conditions, most improvements in cultivation techniques have been deliberately designed for the increase of productivity on the better and more easily worked lands. Rural depopulation of the hard lands which gained such momentum in nineteenth-century Europe is an inevitable concomitant of such increases in productivity and of the accompanying demands for higher standards of material consumption and an 'easier' life. In countries such as Malta, this means that a new equilibrium has to be established, existing and new techniques and implements have to be evaluated against established environments and actual or potential changes.

24 Three examples from case-studies (Key letters refer to Chapter X E) can
31 illustrate what this means in farmer's terms. The first (A, p. 337) concerns a
435 part-time farmer in Region A II, Mellieha Isthmus. This cultivator corroborated other evidence that in the nineteenth century it was still common for 'dry' fields
[242] to be created out of wasteland. More recently it has only been economic to make irrigable fields. The method is virtually the same in either case. First a terrace is cut into the rock slope, and the stone rubble is then built outwards in 'made-ground' and held in place by a terrace wall. Soil, usually now from a building site, is then laid over the rock platform and stone infill. Such a field 2 *tmien* in extent in 1951 cost £150 in construction (almost entirely in labour) plus £50
[434] for the transport of 30 truckloads of soil. The gross receipts from this irrigated *campe artificale* were £60 and £35 respectively for the first two seasons. A generation previously, such work would have been done more slowly by full-time farmers who themselves would have garnered the soil, but the market for irrigated vegetables would have been smaller. A generation hence, a cultivator will add to the costs of construction all the at present uncosted labour expended

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

by himself and will think of net profit on his sales rather than of gross receipts.

The second example is from a case-study (J. p.342') of a full-time mixed farmer holding 33 *tmien* of dry land (three blocks of six field plots) in Region C XX a, the Mqabba-Kirkop Plain. During the last 20 years, this farmer has built up a herd of 13 Maltese Friesian cattle including ten milch cows from a flock of six goats. Before World War II he relied on crop-sales from arable land. Now approximately half the cultivated area is given over to fodder production. Although by Maltese standards this farmer is enterprising, knowledgeable and possessed of much more than average capital, he has no mechanised equipment for tillage but relies on contract work. Each year a tractor plough and rotary cultivator are hired at a cost of between 15s. and £1 per *tomna*. The farmer still differentiates very clearly between the quality of different parts of his land, on the basis of a soil depth which varies from 8 inches to 2 feet, and on soil type distinguished by colour. Nevertheless, since he is now only really interested in livestock, and regards even fodder production as uneconomic, he has lost interest in arable farming and tends to neglect the poorer land and think of disposing of the other. This man is typical of many of the better class farmers in that the old niceties of tillage are forgotten as commercial considerations predominate, these latter a resultant of social and economic change in the Islands.

Lastly we may consider the extreme development, the farmer turned machine contractor. Only half the age of the farmers already considered, this man is much more aware of general developments in the agricultural scene, partly as a result of seven years spent as an 'emigrant' in Australia. Patrimonial land is left to the attention of other members of the family, and he is only concerned with investment in machinery for hire. This contractor now possesses a lorry, a Ferguson hydraulic lift tractor, a hydraulic shovel, triple-disc and mould-board ploughs, a rotavator as well as numerous accessories, and wants to purchase a thresher and a small combine harvester. The whole cultivation emphasis is put on mechanical effort and its ease of application. Deep-ploughing is advocated wherever possible even though he admits 'there may be drawbacks', no qualms are felt about knocking down walls to gain admittance to fields, and considerable impatience shown towards traditional agrarian and social values. This man even complained that he was not allowed to plough on Sundays. One of his ambitions is the quintessence of the new attitude towards cultivation. It is to have a farm of 30-40 *tmien*, all in one block with no patch smaller than about an acre, the whole to be workable by tractor, thus making hand labour unnecessary, and accessible to heavy machinery. The holding should have its own farmhouse and be near to a market such as Żabbar. In this man the mechanical revolution in cultivation in Malta is epitomised, contrasting strangely with an attitude met at Rabat that the wheelbarrow is too technically revolutionary to be acceptable - 'it is not used here!'

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

C. Husbandry

241 128 In this section, a brief examination is made of those elements in agricultural production not previously considered. A methodological problem arises from the fact that, as should be abundantly evident, farming in Malta is a complex in which it is most difficult to isolate the various elements. The method adopted here is to examine in general first arable farming, and then livestock. In the subsequent sections, an attempt is made to examine the general economic characteristics of Maltese farming and then to define the types of farms which exist in the Islands, with particular reference to the island of Malta.

242 As in all non-industrial countries with high population densities and limited resources, a paradoxical situation may be observed in Malta. The intensive application of manual labour and careful observances of the minutiae of traditional techniques are found alongside some instances of land neglect which offend all the canons of good husbandry. On the one hand are observed careful tillage sequences, a first shallow ploughing or hoeing to kill weeds, a second deeper ploughing one week later to break up the surface crust and 'stir' for aeration of the soil to a depth of some 6 to 9 inches, and a further ploughing just before sowing to produce a fine surface tilth. On the other hand can be seen hoeing and ploughing during periods of high wind during which steady and large-scale wind removal of the finer aggregates takes place. Similarly, single trees can be almost coddled, while orchards are most often neglected and, while village refuse and animal dung is carefully worked into the soil, little effort is made to discard inorganic rubbish or diseased and seeding crops and weeds.

This paradoxical situation is most clearly defined in the attitude to weed and pest infestation and to the use of artificial fertilisers. Weeds of many types occur everywhere, and their eradication is manifestly impossible as long as the areas of wasteland to be found in every region provide safe centres for propagation and diffusion. The very walls of Malta which line almost all the fields and roads shelter weeds and pests. Even if eradication is impossible control is not, and the inadequacy of present husbandry is a measure of difficulties both mental and monetary.

The most prevalent and damaging weeds are broomrape and *oxalis cernua*. The former is indigenous to Malta as a field weed, particularly in association with cereals and broad beans in the dry farming area. On the thin dry soils of these regions, broomrape competes, only too successfully, for the limited water available and for plant nutrient material. The total effect on yields and the negating of much of the effort put into leguminous crop rotations must be very serious. Chemical control seems unlikely, and the cultivators themselves are aggravating rather than ameliorating the position. One cultivator interviewed in Region C XVIIIa epitomised the situation. Complaining that 'the weeds are pushing us off the land' he pulled his sulla crop, carefully leaving his wild oats and broomrape to seed freely. It was not surprising that his immediate neighbour had given up farming.

Many similar situations may be observed. Partly they are to be explained by the diminished actual and psychological pressure on land resources. In the main however they imply a basic parochial ignorance left as a legacy from the more primitive past. A farmer interviewed in Region C XX e clearly illustrated the nature of the mental problem. On being remonstrated with, because while pulling his rust-infected broad beans he left the numerous broomrape plants to seed freely, he professed astonishment at our ignorance. Observation, he pointed out, showed that the root tissues of bean and broomrape were not only intermingled but conjoined. Obviously therefore *both* plants grew out of the planted bean and surface seeding had nothing to do with the weed infestation. The problem set is how to explain in a convincing manner to a medievally-minded farmer the following: 'The seeds (of broomrape) germinate in the soil if the fibrous roots of a congenial host plant are nearby. Otherwise they remain dormant . . . as long as 13 years. When the primary root or radicle of a germinating seed makes contact with a fibrous root of its host, it forms a nodule of tissue

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

D. Economic and Commercial Characteristics

In 1956, Surridge (1) in a note on Co-operatives in Malta, endorsed the F.A.O. statement (2) that 'real progress in the co-operative field will be impossible so long as the essential connection between credit facilities and marketing remains unrecognised'. 241 433

Subsistence farming is not now practised in the Maltese Islands and all farmers are to a large extent controlled in their productive use of land by commercial markets. The application of capital and techniques to the land is much more than the simple provision of cheap credit.

Environmental conditions necessitate the continued and intensive use of hand labour in order to maintain in existence the artificially made fields and in order to utilise the maximum area of land. Therefore large-scale capital application is restricted to provision of better water supplies and similar public works projects. What is needed is the small scale use of capital in crops and livestock experimentation and for backing efforts in the export markets. Capital provision for land purchase should not be made until cultivators are less likely to indulge in speculative 'landgrabbing' which would result in greater problems of fragmentation, etc.

The amount of hidden capital in the countryside must be very considerable. Estimates that 80 per cent. of Malta's National Income is derived directly and indirectly from the Defence Departments cannot take into account all the gross real income in kind of the countryside - real income which never appears long enough to be measured. Present expenditure on improved equipment and better breeds of plant and livestock as well as spectacular efforts such as the building of Mosta Church go to show that, given incentive and faith in the future, the rural communities can and will deploy some considerable hidden reserves. Before any such capital will be applied, some compulsive force must operate on the farmers. [454] [434]

For centuries past, production has been largely for subsistence except for cotton and cumin seed, both exported to other Mediterranean countries. From the sixteenth century onward, urbanisation slowly created a significantly sized indigenous market and, with the disappearance of the trade in cotton during the nineteenth century, the home market became completely dominant. Some 70 years ago, potatoes became profitably exportable, while at the same time rapid urbanisation increased the size and wealth of the home market. As already noted, the domestic market for milk is of very recent origin, while export possibilities for crops other than potatoes are now slowly being realised.

Until World War II, marketing of produce was organised almost entirely by licensed but uncontrolled middlemen - the *pitkali* - who collected or accepted small lots, offered them for sale to wholesalers or retailers, and then paid the farmers the negotiated price less commission. (The details of organisation are well described in the 1911-12 Royal Commission Report (3).) During World War II, 'the evolution of Internal Marketing made a great stride forward during the exigency... (4)'. This statement really means that controls were imposed on prices and marketing, controls which have basically survived to the present day. As the economics of production have become more confused with welfare policies, so the complexity of the situation has increased. All that we can do here is to sketch and illustrate the nature of this complexity. 241 441 435

The first factor to be reckoned with is that cultivators in no case know their costs of production. They have some general idea of whether a proposed price is unprofitable or not but this is not necessarily trustworthy. Secondly, while the fodder crops are not very perishable, the vegetable and fruit products which find their way out of the rural economy into Maltese markets are extremely so. While the market for such produce in Malta is not a very selective one, this on the whole has the effect of encouraging the sending to market of produce which is very liable to deterioration. In the markets, therefore, any produce surplus to clear requirements is virtually valueless. One complaint concerning the

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

241 441 435 *pitkali* system is that the middlemen charged commission for negotiating sales but took no stock risks. Thus, when wholesalers and retailers had satisfied their requirements, playing for safety themselves, the *pitkali* merely informed some unfortunate producers that their product could not be sold. The prices attained for that which could be sold varied with the skill of the *pitkali*. Since many Maltese farmers need forward credit for various purposes, it was perfectly natural that the *pitkal* became not only a middleman but a supplier of credit and therefore to some extent a controller of production. The whole of this system resulted from two simple facts. First, the quantities of individual items that most farmers could daily offer for sale were so small as to make some concentrating agency a logical development. Secondly, the social legacy of dichotomy between town and country meant that the farmer was most often incapable of dealing directly with his market. Questions of literacy, language and social status still often put the farmer in a position of inferiority. The *pitkali* bridged that gap. In so doing they have sometimes exploited the farmers' ignorance. Many and vivid are the stories heard of their dishonesty; one such, told by several farmers, concerned the spring export crop of potatoes in 1955. They had been told by middlemen that the U.K. market had been depressed by competition from France and Spain and that therefore the prices offered would have to be low. In fact, shippers declared that the poor quality of the 1954 crops had discouraged some buyers but that the f.o.b. prices were still very much higher than reported by the middlemen. Most *pitkali* are no doubt honest but many farmers bypass them where possible and most others have suspicions - mostly born of their own ignorance.

During World War II, control of all agricultural produce had to be established and, since this time, the financial side of such transactions has been controlled by Government clerks at established *pitkali* markets although the middlemen still handle the actual sales. The intrusion of Governmental financial control has not removed suspicion although it has removed part of the cause of it at the cost of a higher commission charged to the producer. The annual cost of this protection and the controls mentioned below to individual farmers and to small co-operatives is almost £23,000 (8).

Another development has further confused the situation. Stemming from wartime controls, policies aimed at controlling prices for the benefit of the consumer have replaced the old attitude of *caveat emptor*. Various methods have been adopted but they are all based on regulating maximum retail prices, directly and by fixing maximum profit margins and percentages of profit. As noted by many observers, and effectively by an Adviser on Marketing (6), such controls cannot be strictly enforced and it is impossible to make them sufficiently flexible to encourage the production virtues of improved quality and evenness of supply in time. It must suffice here to say that the marketing side of commercial agriculture is not in a satisfactory state, being as it is costly, wasteful and very beneficial neither to consumer nor to producer judging by a great number of local statements.

234 435 441 [467] The local market for livestock products is very different. All milk (7) legally sold is bought by the Milk Marketing Undertaking which in practice accepts any quantity of milk delivered to the collecting depots dispersed through the Islands. There is a tendency to restrict goats' milk acceptances during the summer period of glut by relating summer and winter ratios. Many producers still have written contracts but more important than individual arrangements is the negotiating power of the K.M.H. (the union of milk producers already cited) which incorporates about half of the 600 or so registered producers in the island of Malta. The fixed and scheduled prices paid to producers bear no real relation to production costs since these are not known but rather result from M.M.U.-K.M.H. negotiations and political and welfare decisions by the Government. The M.M.U. takes full risk over wastage and excess production of liquid milk and processed milk products, but is partly able to offset losses by trading profits on imports of dried, evaporated and condensed milk which sales it handles. The M.M.U. now distributes all legally sold liquid milk, as well as its own milk products, and retail prices are fixed by announcement. In 1955-56 the result

was that gross financial loss totalled £124,000 representing an equivalent subsidy to consumers of M.M.U. products, while, if profits on imports were subtracted the figure would rise to over £200,000. The commercial aspect of milk marketing is thus completely artificial and dominated by welfare policies. Price policy, even so, has not been powerful enough to even out the immense seasonal fluctuation in production of goats' milk, roughly half the total, and the smaller but still considerable fluctuation of cows' milk.

Meat production is rather more crude. The Government abattoir slaughters all the horned cattle, most of the swine and a considerable proportion of sheep and goats. The commercial transaction between producer and butcher is usually direct. Here once more the small scale and the unspecialised nature of meat production controls all else. The 1956 Census of Agriculture recorded only nine specialist cattle breeders and 94 breeders of swine as compared with over 700 engaged in sheep and goat breeding (in roughly equal numbers). Licensed importers bring in the store cattle which are then usually sold to non-specialist farmers. Feeding standards are as low as with milch cows. There is little incentive to improvement because of the low standard set by the widespread practice of milk producers selling old and diseased stock for butchering. Pig meat and store-bull meat do command a premium but, while some 15,320 horned cattle were slaughtered in 1957-58, the average import rate of stores is only some 3,000. In the same year, 5,000 sheep (of the indigenous poor breeds) and 8,400 goats (mainly those useless for milk production) as well as 7,800 lambs and kids, were slaughtered. The commercial side of meat and, for that matter, hides and skin production, like that of milk, can only be improved as and when the arable sector of agriculture is further developed.

Lastly, we must refer to exports. For some years, the most important exported agricultural product has been the spring crop of potatoes. Some general points concerning the production and sale of potatoes have already been made (Chapter VII, pp. 205-206), but one or two points need expansion here. The main market for pseudo-early potatoes grown in the Mediterranean (harvested in April and May), lies in North-West Europe. During the earlier part of this century, Holland, Belgium and Germany were the most important buyers but, of recent years, the Arran Banner variety, which yields well as a pseudo-early in Malta, has only found favour in Glasgow. By 1955 this dependence on a single main market was appearing dangerous and since that time, as noted by Haesler in 1957 (8), more heed has been taken of consumer demand for other earlier varieties, yellow rather than white fleshed, such as the Eigenhemer. On the marketing side, some important problems remain. The virtual absence of good civilian port facilities and the dependence on lighterage puts up freight costs and discourages shippers. The middlemen and wholesale handling of produce for export is not above reproach while the only worthwhile markets expect good and consistent quality of graded merchandise. Here the deficiencies of even the most commercially sophisticated part of the community can partly negate improved efforts on the part of the producer. Standards set by the home market tend to affect the services rendered to foreign markets and before the latter can be expanded, the former will have to be improved. There is one sector in which a separate break-through has begun. Air freightage of high value for bulk merchandise (which does not include potatoes) can make distant markets accessible to medium-scale individual producers. Thus flowers, plants and seeds are to some small extent being traded by a few growers sufficiently skilled to bypass the mercantile system. This cannot be done by all but it might encourage emulation.

The whole of the marketing organisation is of course organically associated with production and the commercial aspects of production need consideration.

One of the first points that strikes an observer in the islands is that the production of the different commodities is altogether too concentrated in time. In the case of milk, a traditional organic cycle imposed by crude goat husbandry imposes great financial strains on the centralised agencies. With crops it would seem that traditional fear of risk-taking, rational enough in a peasant economy but antithetical to the whole nature of commercialism, is now hampering

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

241 433 435 development and straining even the existing pattern. In the first place, physical environment so dominates the mind of the Maltese farmer that he categorically asserts the virtues and deficiencies of various regions and does not realise that with the techniques and crop-strains at his disposal he now can negate some of these differentiations. Thus the case-study quoted on p. 329 is atypical rather than normal. The result is that in these Islands, which have a long thermal growing season, there are very marked seasonal fluctuations in production. With cauliflowers, tomatoes, carrots and some other vegetables the produce suddenly appears on the markets, prices soar through the fixed ceilings and then as suddenly slump with glut. For the rest of the year - January to September in the case of cauliflowers, and for all except June to September with tomatoes - good quality produce is not available. Prices to the producer range from very high to zero and such fluctuations, superimposed on those caused by climatic variations, both strain the farming economy and encourage poor production. Thus some winter grown Arran Banner sold for up to 50s. per *qantar* in 1956 but only 8s. 4d. in 1958; in January 1957, unsold cauliflowers could be bought from *pitkali* for fodder at 1s. a sack, while a year later they fetched almost 1s. a *wizna* ($8\frac{1}{2}$ lb. av.).

241 464 465 Secondly, the concentration in time of the various harvests causes severe fluctuations in the demand for labour. All farmers interviewed regard hired labour as poor in quality and expensive. This is a frequent grumble in many countries but in the Maltese context there are some special implications. The number of agricultural labourers, which declined in the nineteenth century as pressure on land resources diminished holding size and encouraged cultivation by occupiers, further declined as urban employment opportunities increased. That pool which is left to some extent sets its standards of wage demand by urban levels, but more important still is only urgently required at two seasons of the year. During the first of these, March to middle May, it is needed for the harvesting of cereals, sulla, potatoes and other winter crops and for the first of the summer cultivations. The second period, about September, coincides with the grape harvest which lasts but three weeks, and with autumn tillage. The result is to elevate day-wage rates to the point of discouragement for the farmer and to lower seasonal earnings so as to repel possible labourer recruits. Merchants, vintners, fodder and food consumers and producers all suffer, and suffer needlessly when one realises the climatic possibilities for extending production.

241 433 To sum up, one may say that the farmer, although largely producing for the market, is generally unable to cost his efforts, deal on equal terms with traders, or appreciate the needs of the market domestic or foreign. This inability must be corrected because the farmer and his land are potentially capable of supplying more of the Islands' agricultural needs than they do at present, and of making a considerable positive contribution to the balance of trade which at the moment they help to distort.

REFERENCES

113
1. SURRIDGE, B. G.: A Note to the Minister of Posts and Agriculture. Malta. 1957. Central Office of Information.
2. F.A.O.: Report on the Development of Agricultural Resources in Malta. Rome. 1955. Restricted.
3. Report of the Royal Commission 1911-12. Vol. II. Report by Inspector of Agriculture.
4. Memorandum by the Director of Agriculture to Sir George Schuster. Malta. 1930.
5. SURRIDGE, B. G.: op. cit.
6. HOFSTEDE, IR. P. TER: F.A.O. Interim Report 1956. Malta. Unpublished.
7. see in particular FORD, G. W.: The Dairy Industry in the Maltese Islands 1956. U.K. Ministry of Agriculture.
8. HAESLER, A. T.: Report on the Agricultural Advisory Service 1955-57. 1957. Malta. Dept. of Agriculture. Unpublished.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

E. The Farmers of Malta

From survey work, farm interviews and detailed case-studies we have been able to distinguish certain characteristic types of Maltese farmer. The variety of practice and productivity within the pseudo-peasantry makes it impossible to take general treatment any further, therefore in this section are presented a cross-section of such types. For obvious reasons, we cannot present details which might lead to the identification of any farmer or his landholding.

241

1. THE PART-TIME FARMER

Numerically as important as full-time farmers this group, although heterogeneous, indicates the incompleteness of the recent 'flight from the land'. At the highest level, as in case-study (A), the stability given by a non-agricultural income encourages good land use.

A - A holding of c. 10 *tmien* in two blocks of 19 irrigable field plots in Region AII, Mellieha Isthmus, produces c. 60 per cent. of the cultivator's net income. Irrigated market gardening produces potatoes, tomatoes, artichokes, cucurbits, carrots, cauliflowers, garlic, lemons and table-grapes for sale, and beans, maize, celery and turnips for home consumption. Rents of reclaimed land on Government property are negligible. The farmer maintains that he holds the land partly to support the present family of three and to enable his eight adult emigrant sons to have some 'hobby' land when they return as expected to Malta. Nevertheless, his husbandry standards and commercial acumen are good, his yields high. This type of part-time farmer is neither common nor rare.

B - At the other extreme is a policeman who, in 1950, purchased 14 *tmien* of dry land in Region XVIIIb, ta'Qali, in order to have land to work after retirement. Of this, 10 *tmien* is let out on annual leases, both tenants' and landlord's responsibilities being ignored, and 6 *tmien* is 'cultivated' by the owner, carrying weed infested and diseased crops of wheat, sulla and broad beans. This is symptomatic of unhealthy economic and social conditions, viz. simple land hunger based on insecurity of urban occupations and inadequate pensions.

2. THE FULL-TIME ARABLE FARMER ON IRRIGATED LAND

The time-consuming nature of market gardening and the high value of irrigated *saqwi* land tend either to restrict the total size of holdings or to focus the farmer's attention on such land.

C - In Region XIV, two full-time farmer brothers with three dependants cultivate 7 *tmien* in one irrigated plot (Fig. 111A). One of the brothers returned from temporary migration to Canada in 1913 bringing some capital and ideas. Their equipment consists of hoes, an American windpump and an English diesel pump. There is a well graded irrigation system of three cisterns, overhead and ground level stone channelling. The diesel pump is used for filling the cisterns, the windpump for maintaining the water level. Both farmers share equally the cost of equipment and pumping and have a family arrangement for division of labour and produce. Surplus produce is sold in the Rabat market.

D - A full-time farmer with family of 11, six of whom are adults, working on holding of c. 30 *tmien* in Region A XV a The Blue Clay Basin (Fig. 141). Lives on a main plot of 14 *tmien* on Blue Clay and marl. On the main part of the holding are cultivated irrigated fruit and vegetable crops. The other plots consist mainly of rock, rough grazing and carobs with some vines. Intensive aboriculture is practised with peaches replacing plums and old apple stock being replaced by vines and peaches.
Livestock - 1 horse, 9 sheep, 13 pigs and 3 goats.
Equipment - *mahriet* and hoes. The farmer borrows a 'rotavator' for summer cultivation and has 'access' to lorry and jeep for marketing produce. The dwelling has piped water supply. Irrigation water is obtained from

[231]
[407]
[312]

102
241

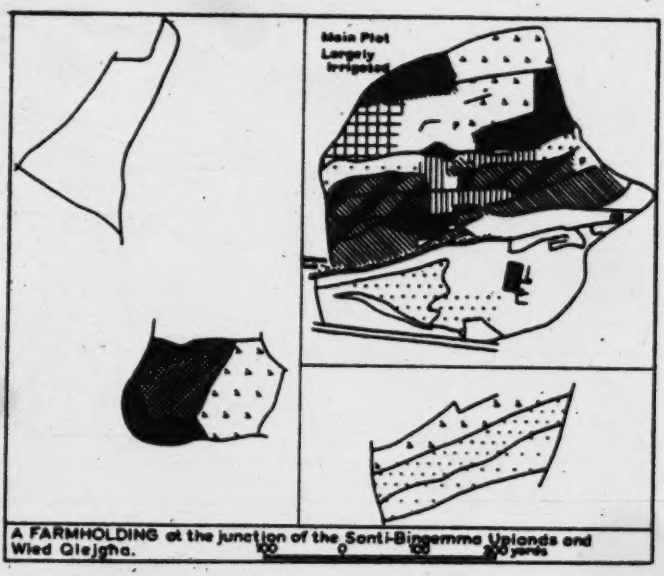


Fig. 141 A farmholding at the junction of the Santi-Binġemma Uplands and Wied Qlejgha.

241
312

Upper Coralline aquifers overlying outcropping Blue Clay. The main supply, from a fissured Coralline cave now piped into a cistern, has only failed once (1950) since 1921. Water needs conserving in summer and is then only applied to special crops. Minor supplies come from 'wet weather' springs on Blue Clay slope.

134
241

Soils - deep, weathered marls with thin clay beds, these latter being used for marling the Upper Coralline lands. In winter, the clay beds are too wet for most crops, e.g. during the 1953-54 season an attempt to grow wheat failed completely and, on 2nd April, 1955, drainage holes were necessary to hasten the percolation of surplus water in some fields. In summer, the clays need careful tilling in order to avoid caking. Produce is mainly for sale in Rabat market.

241 3. THE FULL-TIME DRYLAND ARABLE FARMER

This group is numerically and areally the most important. It also tends to set the general standard of farming.

E - The first example of this group works land in Region CXX, the Tarxien-Ghaxaq Basin. A full-time farmer with two dependants with a fairly concentrated holding of 32 *tmien* (8.7 acres), used as follows in spring:-

3.6 *tmien* of Sulla
5 *tmien* of Potatoes
5 *tmien* of Wheat
5 *tmien* of Barley
.5 *tmien* of Broad Beans (vegetable)

19.1

The remainder is under onions, aniseed, cumin, fallow and forages. The best land has 30 inches of soil and is rented at 26s. per *tomna*. The poorer

241

land, with as little as 3 inches of soil, has rents as low as 10s.
Livestock - pigs and poultry.
Equipment - hoes and one *mahriel*. The farmer borrows a horse for ploughing and a contractor with tractor and single furrow steel plough is hired for cultivating the best land at a cost of 17s. per *tomna*.
Rotation
First Year - Manures soil with dung and sulphate of ammonia.
- Plants summer crop of potatoes for lifting in September.
- Plants a following crop of winter potatoes for lifting in December-January.
Second Year - Plants and sows onions, aniseed and melons in March-April for summer harvesting.
- Sows wheat and barley in the autumn.
Third Year - Harvest cereals in June-July.
- Sows sulla, broad beans and *Widna* in the autumn.
Fourth Year - Crop fodders in March-April.
Marketing - Sells *Widna* hay (cut after seeding) and sulla hay (cut when in bloom) to goat and sheep herders.
- Sells other crops direct to wholesalers, bypassing merchants in order to obtain higher prices.

F - The second example has land in the best dryland farming central region, in this case C XVIII d. A full-time farmer who lives in Siġġiewi itself with his family of eight. The very scattered fields lie between Siġġiewi and Buskett, making up the total holding of 24 *tmien* (8¼ acres).

- at Buskett	- 8	*tmien* of Tomatoes
	- 3	*tmien* of Broad Beans
- at ta'Haxxluq	- 1.5	*tmien* of Sulla
	- 2	*tmien* of Barley
	- 4	*tmien* of Potatoes
	- 1.5	*tmien* of Onions
	- 1.5	*tmien* of Broad Beans
	21.5	*tmien*

Remainder under vegetables, cumin and forages.
Livestock - 1 horse, 4 sheep, 4 goats, 1 pig, poultry.
Equipment - Hoes, two ploughs and cart.
Crop Sequence - Ploughs and manures after sulla crop.
- Plants potatoes in January.
- Lifts potatoes in April.
- Plants cabbages and cauliflowers in May.
- Harvests these in winter. Then cereals, potatoes and sulla.

If soil not manured then sequence - sulla, barley, one year of fallow, and then 'almost any' crop - usually potatoes.
Marketing - sells produce to Siġġiewi *Pitkali*.

Many dryland farmers in the western half of Malta also have relatively small but important *ġnien* plots. One such has already been considered from the point of view of holding evolution (Chapter IX B) and the relevant production facts may be summarised thus:-

G - The farmer, married with seven children, now works c. 63 *tmien* of dry and 2 *tmien* irrigable land in Region A XI, Binġemma Basin. Two-thirds of this is worked in partnership with a brother. The *ġnien* land is mainly under apples, the most important cash crop. Three fields, distant from the village farmhouse and with thin rocky soils of a maximum depth of 12 inches over a rock platform, carry vines of ages ranging from over 30 to 2 years. Plot 4, a narrow strip of good *terra* soil is planted under vines because neighbouring small parcels carry fruit trees making it impossible to grow sown crops successfully. Plots 5 and 6, on good 18 inches deep xerorendzina soils, are most suitable for tomatoes, wheat and sulla. Plot 7 carries self-sown sulla on heavy clay, plot 8 rotational sulla. All these plots are worked

102
241

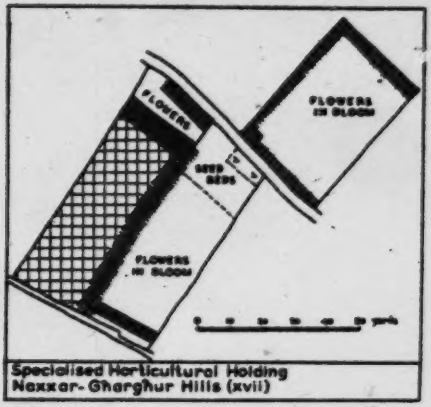


Fig. 142 Specialised Horticultural Holding in the Naxxar-Gharghur Hills.

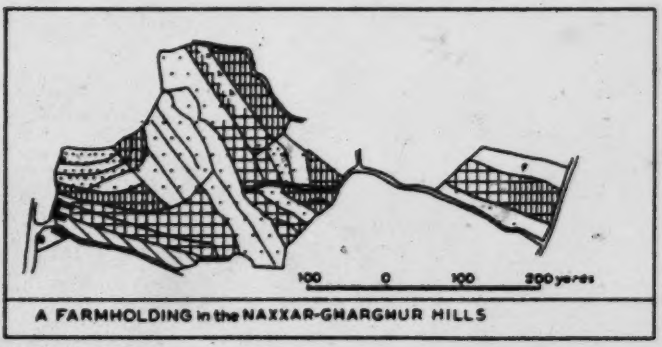


Fig. 143 A Farmholding in the Naxxar-Gharghur Hills.

241 by the cultivator for his wife who inherited control from her family. The remaining two-thirds of the land is held from several landlords in various customary partnership arrangements. On these field plots, very variable in quality, a typical land use pattern would be as follows:-

1½ plots, c. 3 *tmien*, under vines.
2 plots of six terraces, c. one-half rocky waste, one-quarter vetches and barley, one-quarter wheat and beans.
2 plots, c. 4 *tmien*, under wheat followed by melons.
½ plot intercultivated potatoes and melons.
2 plots, c. 2 tmien, under *fiżbiena* (black peas).

This farmer, like many of his kind, obtains the greatest single return from *tmien* fruit farming and, although with very limited livestock interests, devotes much acreage to leguminous rotational fodder crops to be sold either by the field or by harvested volume. Working livestock is owned by the farmer and about half the land periodically worked by hired machinery. Produce is sold mainly through middlemen - the *pitkali*.

Such dry land farmers need about 20 *tmien* or more of cultivable land in order to make a reasonable living by rural standards. They and their families are necessarily expert in traditional ways of cultivating a considerably range of crops. Most of them rely on home raised seed except for spring potatoes and very few of them need very much liquid capital. Under normal conditions there is no debt problem. Production of individual items is generally small and, unless they have direct connections with wholesalers and retailers in nearby towns, they rely very much on the collection and sale of produce through middlemen. Their expertise is largely a matter of hard won experience of handling particular soils and crops and very limited in other ways. 241

4. THE SPECIALISED CROP PRODUCER

Lastly, there is the small group of highly specialised arable farmers. These are mainly producers of flowers or seeds and, at their highest stage of development, sell their high-value produce abroad. In practically all cases the only thing that distinguishes them from their neighbours is knowledge and initiative. The next example shows the type of indigenous development that is fairly easily attained. Here, and in the next stage of export marketing, lies one of the hopes for Malta's economic future and stability for Maltese agriculture. 247

H - This farmer and one adult son have 20 *tmien* of land in Region C XVII. Seventeen *tmien* are farmed under a relatively extensive cereal, sulla, catch-crop system, the remaining 3 *tmien* (Fig. 142) intensively cultivated under flowers - 'More profitable than normal Maltese agriculture'. A rotational sequence is practised of flowers, vegetables and a 'resting crop' of wheat or sulla. Vines are grown on wallsides. This farmer occasionally hires contract ploughing but normally hand-hoes 12 to 18 inches deep *Terra* soils and regularly and heavily applies sulphate of ammonia as well as green manure. Flower seed is imported annually from the U.K. and Holland, since Maltese strains are poor and diseased, and imported strains rapidly degenerate. Produce is sold directly in the relatively wealthy suburb of Sliema. A characteristic range of flowers together with some nine different vegetables at Easter would be:-

Alliums	Broom	Freesias	Larkspur	Narcissi	Tulips
Anemones	Carnations	Gladioli	Love-in-a-mist	Roses	Violets
Bluebells	Dahlias	Gypsophila	Marguerites	Iris	
			Marigolds		

5. MILK PRODUCERS

Another main group of farmers consists of milk producers. Differentiation between them is considerable depending as it does on the scale of production, the efficiency of production and on whether cows or goats are kept. At the lowest end of the scale come the virtually landless small-scale producers of goats' milk. These are the last survivors of a traditionally important class of urban herders who, before the control and pasteurisation of milk, delivered milk 'on the hoof' in towns and villages. Typical is case-study:- 234

I - This producer rents 2 *tmien* of land in Hamrun, half of which is used for domestically consumed garden produce. The remainder gives some exercise space and grazing for a herd of goats varying between 50 and 30 in number. This herd, which includes some 25 milkers, is over-fed on purchased fodder, and gives an average daily milk production ranging from a winter minimum of c. 30 lb. per day to c. 70 lb. per day in summer. Individual yields are low in quantity and quality and the farmer and his eight surviving children only survive in debt-ridden existence because of the M.M.U's guaranteed prices. He has no capital or equipment and the family's food consumption comes half from the garden plot and is further supplemented by food gifts from C.A.R.E. (an American welfare organisation). There is no real future for this type of livestock farmer.

Higher in the scale come the goats' milk producers who are able to rely on fodder from their own lands. One such, in Gozo, Region I, The West, may be summarised thus:-

342

234 *J* - With a holding of over 42 *tmien* in 26 plots, half of which is rough grazing, and with 2 *tmien* permanently under potatoes, this farmer is able to supply most of the fodder requirements of his 46 goats and kids, and 100 head of poultry as well as a few cows, sheep and horses. This land costs some £23 in rent. This farmer obtains a gross profit (receipts minus fodder costs) of some 14s. a day from sales of milk. At this level he, like many of his type, is aware of the crude economics of the situation and of the need for relating feed to livestock needs. Even so, readiness to experiment is confined to those sectors in which the farmer is able to base production on traditional knowledge and his own and family's uncosted labour. In Gozo, remoteness from the main milk market in the Maltese conurbation strengthens the general herdsmen's reluctance to use relatively novel milch cows.

[427]
[434]

Farmers who are mainly producers of cows' milk are, *ipso facto*, economically more sophisticated than goat herdsmen. Even so, the range is considerable, particularly great since most of these 'dairy farmers' also rely on arable farming to a varying extent. Thus case-study:-

K - is of a working partnership of two friends who keep some 40 cattle in Regions C XX b, Luqa-Zejtun and C XX e, Delimara. Untypically, they hold some 100 *tmien* of land, much of which is wasteland grazing on Defence Department land. The complexity and obscurity of their claims to much of the land reflects the rather unorganised pattern of production. Since they have land, they grow the standard cash-crop - potatoes - and vegetable crops for domestic consumption. About two-thirds of the cultivated area is given over to fodder crops - wheat, barley and sulla. This, together with a truck-load of prickly pear each day and cake and beans fed to capacity, suffices for the cows. The cultivators' answer when questioned on production costs is *'Min jaf?'* - 'who knows?', and they are not at all convinced of the need for balanced feeding. Cows are served altogether at the season which would be suitable for goats so that production varies seasonally with a spring and early summer maximum of c. 50 gallons daily and a midwinter negligible minimum. This of course is in inverse relation to the Mediterranean plant growing season and, as noted earlier, accentuates the seasonal fluctuation normal with goats' milk. Significantly, the families drink goats' milk in preference to cows' although some of the former is sold. Such farmers, although operating on a fairly large scale, are almost perpetually in debt and rarely have much capital.

By contrast one may find the type of producer already referred to on p. 329, case-study:-

L - This farmer, although with relatively few cattle, is an efficient and highly developed type by Maltese standards. The half of his cultivated land devoted to fodder crops supplies half of the fodder requirements of the 13 stall-fed cattle. The remainder, including beans and cakes, costs him some £1,000 per annum. Receipts from milk sales come to c. £1,350 per annum. This farmer, becoming interested in the possibilities of cattle-breeding, puts most of his not inconsiderable capital directly into the livestock. Arable crops, particularly potatoes and onions, bring in good gross returns but, as with fodder production, are becoming increasingly regarded as uneconomic. This in spite of the fact that the only financial records kept relate to milk sales, fodder purchases, land transactions and buildings. With farmers such as this, one finds an irrational blend of conservatism and a readiness to try new ideas such as artificial insemination and balanced feeding.

[434]

234 241 6. MIXED FARMERS

Lastly there are the mixed farmers, which in Malta and Gozo usually means farmers who for one reason or another have neither become very reliant on the 'milk-cheque' nor are able to grow irrigated or specialised crops. These farmers, usually middle-aged, have little capital, a modicum of enterprise and reasonable dry-land but the lack of agricultural interest shown by their sons discourages much development. They tend to be opportunist in outlook and fairly

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

efficient as judged by yields. This is the group mainly responsible for the fairly steady progress made during the last 30 years but their productivity is neither high enough for modern needs nor attractive enough to ensure family succession on the land. A typical example is a composite case-study:- 234 241

M - In Region C XVII, the Naxxar-Gharghur Hills, lies a holding of 40 *tmien* (Fig. 143). Two wells supply water except in high summer. The 60-year-old farmer and his wife live in a relatively new farmhouse, an older dwelling with byres now being used to house six Friesian cows, seven goats, a horse and a mule. The grown-up children have either emigrated or work in *'il-Belt'* and have no interest in the land. The farmer built up his herd in the period after World War II and would like to increase its size but realises that he could not handle any more stock. About 5 *tmien* of land is usually under potatoes, small plots carry vegetables for home use, and the remainder grows fodder. This allocation results partly from the swing towards milk production but also from the high cost of hired labour to work the land. Husbandry is fairly good but the farmer confesses his technical ignorance and has no younger generation on the farm to encourage him. He keeps no accounts since 'this is the way he lives'.

Many other examples of sub-types of Maltese farmer could be given, ranging from the highly organised syndicate of five brothers which practises successful mixed farming in Region C XVIII d, Siggiewi but which, almost as a result, is highly resistant to change; to the fruit and vegetable farmers of Wied San Blas in Gozo (Region III, Northern). Those given represent a fairly comprehensive cross-section of the producers who, within their limitations, make a fairly efficient use of land resources. Unfortunately this is not enough. All but a very few are commercially limited to an appreciation of the local not very exacting markets. In no case have we found any appreciation of costing by profit but only a more or less vague knowledge of gross returns. Everywhere there is suspicion, not vicious or pathological but quietly ingrained. It is assumed that the only way to ensure fair purchase prices is personally to deliver the produce - even to the M.M.U. It is equally natural to be suspicious of bureaucracy - a not abnormal rural phenomenon - and also of the practical knowledge if not the learning of advisers. A great many farmers are also conscious of a helplessness, of being left behind by the cunning of the city. This too is a not abnormal country attitude but, seen in the context of the whole social nexus, it is dangerous. 241 829

Note: For a fuller consideration of some case-studies see P. K. Mitchell: 'Studies in the Agrarian Geography of Malta', Part II, 'The Maltese Farm'. Report to C.E.R.C., Durham, 1960, and B. W. Boxley: 'The Farmer and Rural Society in Malta', Report to C.E.R.C., Durham, 1960. 113

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

F. The Farmer in Maltese Rural Society

241 571 A study of the Maltese farmer within the total of agriculture in the Islands must include a consideration of the individual as a member of the community in which he lives, works and thinks.

The total social environment of the Maltese countryman may be seen as three concentric circles - family, village, and 'Malta'.

241 619 To the Gozitan who has never crossed the sea to Malta and to the old countryman for whom Valletta is a foreign world, the concept of 'Malta' is something large and indeterminate. But even for most of the rural population, for whom Valletta and the towns are becoming a familiar part of experience, the Islands are large enough for the countryman to feel none of the claustrophobia of which visitors to Malta complain. The 'National' unit is large enough for him to speak of *'Il-Gvern'* - the Government, of which he has heard frequently, though imprecisely, on all sides and on which he blames many of his economic and social problems with a characteristic disregard for logic or even fact. This concept of *Gvern* is of importance in an appreciation of rural thought in Malta. In it no very clear distinction is made between Maltese Government and the Imperial side of the Dyarchy. Neither is allegiance to one or other of the political parties very significant, for personality is always more important than party.

[178] To give an historical perspective to this attitude of the remoteness of *Gvern* one may see in it not only the product of foreign British rule since 1800 but also the legacy of the 'paternal' government of the Knights of St. John during their previous two and a half centuries in the Islands. Rural communities are characteristically conservative.

793 The other Malta-wide authority is that of the Church, but the summit of this is scarcely less remote to the individual than is *Gvern*. In the normal practice of his Religion the countryman leans directly on his local priests, though the Curia and Archbishop in Malta and the Bishop in Gozo do represent, for him, the essential unity that is the Maltese Church.

241 178 369 Within the framework of 'Malta' the distinction between the conurbation of towns, centred on Valletta, and the countryside is crucial. This 'conurbation' may be defined as those census districts with less than 3 per cent. of their working population engaged in farming. In 1948, this accounted for all districts bordering on either the Grand or Marsamxett Harbours together with the adjoining residential suburb of St. Julians (1). Outside this urban area, the farming element in the working population increases towards the west and north of Malta, although only in Mgarr does it pass 50 per cent. In Gozo, the scene is notably more 'rural', on the basis of this definition, with six of the 12 census districts having more than half their working population engaged in agriculture.

[463] A survey of parallel information in censuses over the past 100 years shows a declining farming element along with a diversification of the occupational structure - especially in those villages regarded as traditional strongholds of agriculture.

This trend to economic diversification has been accompanied by a break away from the former social homogeneity of these rural villages. In fact, economic and social change cannot be considered each in isolation. In Malta, change - in its widest sense - has spread into the countryside from the conurbation. The tempo of this process has accelerated rapidly since the 1939-45 war, which brought town and country together more than ever before and shook the foundations of the cleavage between 'peasant villager' and 'urban townsman', a key feature in the social geography of the Maltese Islands. The appearance of schools, amenities - particularly transport, and a degree of occupational choice, have enabled the countryman to sample a more 'urban' way of life and culture and this has produced a dissatisfaction with rural society as it has been. Maltese countrymen knew they were regarded, as a class, as low in the social scale of urban opinion. They accepted this fatalistically and were in fact able to view

1: Bowen-Jones et al, K-5 (1955-1958) 1961
EZ6 Malta EZ6

their designation with a certain tolerant wisdom. Not so the present young generation in the farming community for whom education and material facilities have presented the chance of escape from a social inferiority complex.

The village was traditionally the community-group in rural Malta. Contact with the towns and Valletta was limited, especially for the villages of the west and in Gozo, until buses, press and rediffusion narrowed the gulf, but it was hardly less than the contacts between the villages themselves. The village was the group for most social interaction. Currently, the trend is towards a Malta-wide community-group in which villages are losing much of their isolation, although there is very little uniformity in this process. Sub-urban villages are clearly absorbing non-rural characteristics much more quickly than is the case in outlying parts of the Islands.

The nucleus of village life is the Church and the first citizen is the Parish Priest. The Priest combined teaching and general advisory duties with his spiritual role (see Chapter VI C). He was also the main link with the world outside the village through his relaying of general news from his pulpit. Normally, land transfers and a wide variety of matters connected with the agricultural cycle were announced by the Priest. The Church was the social meeting place and the basis of institutionalised activity. Even the village *festa*, that single day of wild exuberance, noise, fire-works, procession and carnivalesque has as its pretext a religious observance such as the honouring of the particular Saint of the village or the National Feast of the Shipwreck of St. Paul. In all this, the link between Priest and people was often further cemented by wide kinship connexions within the village. The son of an illiterate farmer might progress through Seminary and University to return to his home village as a priest and to be claimed as a relative by many members of that static and much inter-married community.

Such proximity, together with the very number of the priesthood in any parish made for a familiarity with the personnel of the Church just as confession, fasting, observance of Saints' and other special days, quite apart from the daily Mass, made for close acquaintance with its practice.

It is convenient to use the past tense in the foregoing only because the picture sketched has been modified in recent decades. It is however still the essential basis of communal life, especially in the rural community which, as suggested, holds to traditional custom longer than does the town. The modifications which have appeared are important in this present consideration because they lie behind the current social upheaval in which the individual countryman is being faced with a clash of new against old. If, as seems possible, he leaps to the new so completely as to relinquish the old entirely, then the traditional order of society will disappear along with the agricultural system on which it is based. This is the problem of the farmer in Maltese rural society.

An early non-religious movement was that of the Band Clubs; the first appeared in Rabat in 1860. But even these came to be identified with particular Churches and also with parish rivalries. The Band Club grew to become a major feature of social life in both town and country in Malta, although in Gozo it has had only a limited extension outside Victoria.

The Band Club is essentially a male organisation. Women have never been more than tolerated spectators and, to this extent, the movement reflects the place of women in Maltese society. Emancipation of women has spread into the countryside from the towns but even today women take an undemonstrative part in village activity and their movement outside the home is largely confined to Church-going, shopping and possibly field-work. The modern young woman who has had at least eight years schooling seeks paid employment beyond the house and fields. In rural circles the tendency is still to frown mightily at such a suggestion but it can only be a matter of a few years before what is now accepted in Valletta becomes tolerated in rural Gozo.

Functional diversification has been the keynote of twentieth century village society in the Maltese Islands. There is no evidence to show that there is any challenge to the position of the Parish Priest in matters religious (the situation has been less satisfactory from the point of view of the Church in urban Malta)

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

178 but there has been a delegation of his traditional secondary functions. The spread of Government primary education, for example, has produced a literate younger generation able to write - and think - for itself; rediffusion, cinemas, and television have made their presence felt; the Maltese-language press has grown in volume and scope; letters and visits from emigrated Maltese widen horizons rapidly; cheap bus transport puts most of the Malta within easy reach; health and social services have brought improvements; C.A.R.E. (2) and other relief supplies have brought a new external influence; the changing pattern of work with the new limited working day is giving the time for the novel activities made possible by cultural and material advancement. The last 50 years have seen the appearance and spread of the lay religious movements (see Chapter VI C) which have attempted to relieve the Priest of some of the work with which he had previously been able to contend unaided. The Society of Christian Doctrine [575] (M.U.S.E.U.M.), founded in 1909, was the first of these but larger and more comprehensive is Catholic Action whose four groups for men, women, young men, and young women have been established throughout the Islands to provide the modern Maltese parallel to the Village Institute, Youth Club and Church Fellowship of other countries.

The rural family was traditionally the economic unit within the village. A century ago, farming in Malta implied the self-sufficiency of the true subsistence 178 peasant rather than the crop- and milk-selling producer of today. The food for 241 the family came very largely from the fields worked by its members, milk from their own goats or sheep and clothing from home-produced cotton and wool. 654

Money and matters financial now occupy a major part of the thoughts of the Maltese farmer - even of the older generation, illiterate and cut off from more cultural developments. Barter as a means of exchange is breathing its last. Perhaps more than anything else did the 1939-45 war mark the change. During the years of siege and shortage the farmer was able to get prices for produce out of all proportion to anything before or since. With the return of conditions to normal after the war this Golden Age of Maltese farming collapsed but the farmer went on somehow expecting to make the same profits in peace as he had in war. The fact that he has not been able to do this, even with recent Government protective farming programmes of subsidies, guaranteed prices and other artificial inducements, has increased the bitterness which the farmer has come to feel for his lot. For its part, the Government has tried to keep the farming community as contented as possible and at the same time has embarked on attempts at dairy and general farming reforms of methods, varieties, marketing, etc., in an attempt to stop the retreat from the land and from the way of life based on it. The produce of the soil is, after all, Malta's only major locally-based industry. This has seemed to prove to the farmer that '*Gvern*' ought to do all that it has done for the farmer, and a lot more. The Government's recent policy has been to educate the farmer to accept the new ideas and novel methods and techniques and it has attempted to do this through lectures to farmers, programmes on rediffusion, and pamphlets - along with the inducements of subsidies and guarantees. But the limited success of this programme has emphasised the basic problem in farming today which is that the 'Farmer' is now the middle-aged or old man, whose lack of education and experience outside the community of his village makes it most unlikely that he will accept information and advice from those who are patently not *Maltese* farmers and lack the lifetime's association with the alleged idiosyncracies of the Maltese environment.

The younger generation, which has benefited from a thorough primary 178 schooling, might have been the individuals to listen to lectures on farming but, 464 and here is the basic problem, as a group the sons and daughters of farmers 24 are desperate to leave the land and even more concerned to rid themselves of 56 what they see as the social inferiority attached to the calling of their fathers. These young people have in fact been educated to an awareness of new possibilities of economic and social life outside farming and also outside the village community which bred them. So many of the younger generation have in fact managed to make the break with the way of life of their fathers that the average age of the Maltese farmer is now higher than only a few years ago, and is still rising (see Section III Introduction).

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

In terms of the social pattern of the rural village, this means that there is a very significant distinction to be made between the older generation of farmers proper and the younger generation whose direct attachment to the land and farming is weaker if not already broken. If one turns to a consideration of the way of life and living standards in the village community this gulf is apparent. Most spectacular perhaps are changes in clothing. 178 241 561

The familiar working garb of the farmer has been the heavy woollen vest, cotton trousers, waistcoat, and cap. Recently, army-surplus shirts, denims, etc., have replaced the locally-made garment, often of home-grown cotton, while the cummerbund is now rare. Sandals are normally worn for walking but not for work. The farmer who works round the clock has never had a 'best suit'. He attends Mass in his working clothes before going to the fields and, on Sundays and holidays, ventures forth as on any other day with the possible addition of a woollen cardigan or more presentable waistcoat. For women, the use of the *faldetta* ribbed hood has declined rapidly in the last 20 years and is now only worn by the older women in the villages and by female members of the M.U.S.E.U.M. movement. The use of black generally by women is declining but most clothes are still made in the home even if from bought material rather than home-produced cotton or wool. The younger generation are not usually content to venture forth dressed in the manner of their parents but insist on making their own appearance as much like that of the average town-dweller among whom they aim to move socially. The white shirt, smart suit, shoes, socks, and well-oiled hair of the young men and the bright dresses, high-heeled shoes, nylons and cosmetics of the village maidens are regarded as the essential uniform of the seeker after the bright lights of Valletta and the towns. The schools have played a part in this with their demands on cleanliness, footwear and dress in the classroom. Occasionally a child goes bare-foot to a village school but no one would think of visiting Valletta shoe-less. The imitation of urban standards of dress is particularly apparent in the sub-urban districts where the farming minority are at pains to 'keep up with the Vellas' in dress - in spite of the expense involved. 178 291

Diet in the traditional rural scene depended upon what could be produced by the fields and animals held by any family. The standard soups and stews (such as *minestra* and *brodu*) were consequently largely vegetable. Meat was rarer, fish seasonal and small birds might be added to a stew depending on the results of the hunting or, more correctly, shooting which was and is a popular Sunday and Holiday pastime in the countryside. The diet was rather less 'Italian' than that in Valletta and the towns, with potatoes in place of the various forms of farinaceous paste - spaghetti, macaroni, etc. As in the rest of the Islands before the 1939-45 war, milk was taken fresh from goats and sheep and was not infrequently disease-carrying. Tinned milk is now popular in town and country but consumption of bottled, pasteurised milk is growing. Tea and coffee drinking have to some extent replaced local and home-made wines, especially in the many bars and small cafés which have become the leisure-time resorts of the men of the villages between strolls in the squares and streets. Even here change is evidenced, for the traditional guitar-accompanied *għana* of the Maltese peasant has given way to *Radio e Televisione Italiana* as the basis of café entertainment. 178 [262] [292] [533] [207]

This very increase in leisure time is significant. The old farmer is content to spend the greater part of every day with his animals or in the fields for they are in fact his hobby as well as his livelihood. Cinemas and bright lights hold no attraction for him; but the young man insists on recreation as he sees it in the towns. The timetable of the farmer varies according to his type of farming. The herdsmen's life is ruled by the routine of feeding and attention demanded by his cows or goats and by the times of milk collection demanded by the Milk Marketing Undertaking. All this means an earlier daily start (sometimes 1 or 2 a.m.) than is usual for the field worker who begins his day with a 4 a.m. or 5 a.m. Mass and then stops for a light breakfast some three hours later. Lunch-time is 11 a.m. or noon and is followed by a *siesta* of some hours, depending on the season and the pressure of work to be completed before the sun goes down and the field-worker shoulders his hoe or his wooden plough and returns home 512

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

for the evening meal, Rosary, and sleep. Electricity has made his time-table only slightly less dependent on the times of the rising and setting sun.

Increased spending-power, a more varied diet now including a variety of preserved and non-local foods, and the replacement of home-produced cotton by purchased materials for making clothes, have all contributed to the extension of shopping facilities in the villages. Apart from the 'general store', specialised shops have also made their appearance - butchers, pharmacists, clothing shops, and so on. The 1939-45 war brought flour and bread rationing and the end of home-baking - hence a further village specialisation (see p. 182). Since the War, the number of vans touring the countryside every week has increased rapidly to bring a variety of wares to the door of even the most lonely farmhouse. The *petrolju* van was early in the field, for the rural Maltese have long relied on paraffin for both cooking and such heating as the houses receive. Yet another addition in recent years to the diet of the poorer classes has been the free distributions of food (cheese, rice, corn-meal and flour) made by C.A.R.E. and by Catholic Relief Services (cheese, beans, flour, etc.), another organisation distributing surplus United States food supplies abroad.

Village housing is changing more slowly. The traditional Maltese rural home was a flat-roofed dwelling built round an enclosed courtyard, from which a stair-case frequently led to an upper floor. The courtyard was the centre of domestic life and much of the regular work of the household was done here. A door, large enough to take a cart, opened on to the street. Windows on outside walls were small and rare. In many of the older parts of the villages, accommodation for animals and stores adjoins the rooms occupied by the family, the whole forming a compact economic and domestic unit. Water was carried from a village pump and sanitation, if any, was limited to independent cess-pits requiring periodic emptying. In winter such premises were liable to be very cold; in the heat of summer the rough roads of beaten earth readily produced a fine dust which can only have had harmful effects on the widespread trachoma and similar ailments.

Nowadays much of this survives only in the memory of the older people. Only some village streets in Gozo are not now surfaced; mains sewerage has been extended to all the larger villages of Malta; electricity is absent only in north-western Gozo; familiar red telephone kiosks have appeared all over the Islands; the larger villages in Malta have cinemas, in addition to much older Band Club buildings.

The essential features of the village society within which the Maltese farmer lives today may be summarised thus in conclusion:-

Economically, there has been a change from the independent, subsistent family unit to a diversified and inter-dependent occupational structure in the village, along with a realisation of the impossibility of maintaining Maltese agriculture in its traditional form without 'artificial' support. Materially, the village is seen to have benefited from a wide range of developments which have improved it as a place in which to live for the Maltese countryman with his now greater range of demands - and the buying-power with which to achieve them, thanks to war-time siege and subsequently to Government subsidy and guarantee. Socially, literacy and the awareness of a different way of life beyond the village have brought to the younger generation an intense dissatisfaction. Dissatisfaction not only with the social regime of the village, even in its present broadened and functionally diversified form, but also with the farming on which the community has depended.

Thus farming in its present form is waning and the Maltese farmer as he was in the recent past - and still is among the older generation - is a disappear-ing individual. If the clash between the present younger generation and the old order can be resolved and if the retreat from the land can be stemmed at all, a different kind of agriculture will emerge with a new type of farmer and a changed rural society.

REFERENCES

1. Census of the Maltese Islands 1948. Table 52.
2. C.A.R.E. - Co-operative for American Remittances to Everywhere.

Note: For a fuller consideration see R. W. Besley: 'The Individual and Changing Rural Society in Malta'; Ph.D. Thesis, Durham, 1960.

132 The Maltese climate is characterised by variability rather than by extremes. Most of the complex elemental combinations, as far as we can tell at the moment, tend to inhibit soil and plant development under natural conditions.

The annual precipitation average of 20.5 inches is largely meaningless - the variations from one year to another for each month in which there has been recorded any significant rainfall are all several times the mean values. Very high insolation and evaporation rates, from the end of April to the beginning of October, further reduce the effectiveness of scanty and variable precipitation. Much of the rainfall of spring and autumn is associated with violent frontal storms and is sufficiently concentrated in incidence to produce ephemeral torrents and cause considerable erosion.

Wind incidence is of peculiar importance. The maritime air streams are generally of high humidity and velocity. The dominant Northerlies, in particular the stormy *Majjistral*, with high humidity and relatively low temperatures, have a biological effect bleak enough to produce a very clear ecological pattern controlled by aspect and shelter. The soil line in the lee of the ridges which lie transverse to these North to West winds, rises higher to the south east with the cumulative sheltering effect. On a small scale, windbreaks of stones, wattle hurdles and even cereal hedges, become of importance. The *Xlokk* comes as a warm humid wind of usually sufficient velocity to force plant transpiration rates above the critical points. The occasional humid still air conditions in winter delay germination and encourage fungus diseases while all summer winds heighten evaporation rates and cause actual soil blowing.

One of the few biologically favourable climatic features is the absence of a thermal dormant season. Mean monthly temperatures are consistently above 50° Fahrenheit, frosts are very rare, and diurnal ranges small. On the other hand, the associated high summer temperatures even though ameliorated by sea breezes produce considerable physiological troubles in plants and livestock. It is significant that over 80 per cent. of the flora now found in Malta are of North African rather than European type.

133 In the absence of human interference Malta must have been, as it still is in many areas, largely a barren karstic waste relieved only by a few basins and plains such as the Wied tal-Pwales and the Wied il-Ghasel. On the hill and ridge tops Terra Rossa formation takes place in solution hollows. On all slopes with gradients greater than 5 per cent., and on all but the most wind sheltered flatlands corrasion and movement, often exposing great stretches of bare rock, are dominant. Only in a few basins, such as the erosional Wied ta'Mazza or the tectonic Bur Marrad in the Wied il-Ghasel, does deposition become important.

In this harsh environment man created the land on which he could live.

134 311 Malta has few true soils but, rather, laboriously garnered and transported inorganic material, carefully built up with humic additions, terraced and walled into place and irrigated wherever possible. For millennia this making of '*campi artificiale*' has gone on and may still be observed, so that some two-thirds of what Bernard Shaw called 'a heap of stones' is now cultivable land. This process of the extension first of hydroponics and then of true farming over bare rock and the reclamation of unhealthy lowland has meant the creation of new and precarious balances. The artificially produced thin pseudo-soil is not self perpetuating. The underlying rock must be regularly chipped away, the solution hollows periodically harvested. The texture must be maintained by the addition of organic matter and by frequent working. The level of nutrients must be kept up with dung and fertilisers and the water content supplemented by irrigation. The terrace walls need constant repair.

In each case there is a sharply critical point beyond which action spells danger. The use of refuse brings bacterial and virus infections, frequent tillage produces a clean surface vulnerable to erosion, the use of irrigation water and artificial fertilisers raises soil salinity. Extension of the soil cover decreases the rate of percolation replenishment of the subterranean aquifers by rain water. Malta is now in fact living on capital as far as water is concerned.

241 There have been similar critical points in crop values. When water is available, the potential crop range is large - bananas grow in barley patches, date-

palms and pomegranates alongside potatoes - but in no case are conditions optimal or yields very good. In the comparatively closed economies of the past this mattered little; in an era of world trade and world markets Malta has now been left behind. Large-scale cotton production has virtually ceased and that of citrus fruit is declining; viticulture is of low standard and the olive tree very rare. Cereals can now provide only a tiny fraction of local needs while fodder production is limited in season and type by water shortage. 241

The critical phase in the social and economic reactions to the physical situation has also been reached. In the simple peasant communities of the past, the creative manual effort was necessarily associated with a low valuation of individual human effort and an arduous and restricted life. Now, however, economic and social opportunities and desires have widened and with them has come impatience with the demands imposed by the artificial landscape. 178

Higher per capita productivity to assure more freedom and leisure is only quickly attainable by technical and mechanical innovation. It is just such innovation that is impossible on a large scale on the land of Malta. 182 241

The slope analysis map (Fig. 28) illustrates one aspect of the problem. Maltese soil 12 inches deep needs, as a minimum amount, terracing at horizontal intervals of about 20 feet. Anything wider in the way of fields or a deeper soil makes essential increasingly higher and stronger retaining walls. The problem is such that considerable control is exercised by dip as well as gradient. The amount of labour involved in maintenance is heartbreaking by modern standards and yet, without it, erosion is quickly followed by the complete stripping away of the soil down to bare rock. The scale of farming operations often has to be very small - the planting of single rows of beans, of single trees, the sowing of chick-peas in rock crevices. Power and tool application is severely restricted. Small and light implements and single draught animals or more recently 'rotavators' alone can negotiate this type of terrain and work very thin soils covering rock platforms. The dangerous effect of the abandonment of any land is obvious. The past has in fact enchained the present. If cultivation is to continue then in order to preserve the artificial ecological balance, created with such effort over the centuries, a social imbalance will become even stronger. Whatever the scale of farming the farmer will always have to grub for soil, build his terraces, carry his plough or manhandle his rotavator for long hours under conditions that will seem less attractive even than those of casual dockside and urban labour. 311 [134]

The first point then is that the landscape indicates how human effort is pinned down by the artificial environment and how restive man is becoming.

The second theme is concerned with the reasons for the historical process of what really amounts to landscape gardening, and with the underlying implications. 175 241

Malta's wealth, in historical times at least, has come from a large extra-territorially derived income which has resulted from the Island's positional value. It is possible that even in prehistoric times Malta was never self-sufficient. The great temple building cultures of Malta and Gozo may well have maintained their master masons on imported wealth. Certainly Carthaginians, Romans, Byzantines, Arabs and Normans all occupied Malta because of its strategic position and took wealth in rather than removed it. The Order of St. John held it as an outpost of Christendom maintained by the Knights' possessions on the European mainland. Britain has similarly supported the Island's economy in return for its use as a naval, military and more recently a strategic air centre. Because of Malta's positional importance its inhabitants found it necessary and worth while to create agricultural resources. Because Malta has usually been an outpost the society and its works have attained the unstable equilibrium of a siege life. 648

At least since Arab occupation a duality has appeared in the community. Earliest at Mdina, later in the Three Cities, then in Valletta and the whole Grand Harbour complex, and now around the naval, military and air bases, the garrisons have formed successive nuclei of a cosmopolitan and sophisticated community. This community, literate, trained in the professions and trades has 369

1 A [See pp. 98-B and 98-C -- Analyst]

2: Boissevain E-5 (1960-1961) 1965
EZ6 Malta EZ6

level. There are also many village clerks and teachers who speak English to their children to help prepare them for school, for a sound command of English is a prerequisite to social advancement.

It is quite true that education has been given greater emphasis in the urban areas than in the villages; but the introduction of compulsory education between the ages of six and fourteen is rapidly closing this gap. The spread of education is reflected in the decline of illiteracy. In 1948, just two years after the introduction of compulsory education, 16 per cent of the population of Valletta and Sliema over fourteen years of age, and 47 per cent of the same age group in Gozo, were illiterate. By 1957, these figures had fallen to 9 per cent and 22 per cent respectively. During the same period, the national illiteracy rate declined from 37 per cent to 17 per cent.[1]

A number of other forces operate to reduce the social distance between town and country. The greater employment opportunities during and after the war, and the continuous improvement in public transport that allowed the villagers to take advantage of them, have placed an ever-increasing number of villagers alongside townsmen at desks and work benches. The war itself was a major force in the same direction, for British troops and people from the urban areas were evacuated to the country to escape the bombing attacks, and so shared the life of their rural neighbours. All learned a good deal from one another. It is not surprising, therefore, that many Maltese, especially in the villages, regard the last war as a social milestone, a dividing line between past dependence upon agriculture and present wage labour, between poverty and relative prosperity.

II

The inhabitants of the villages in Malta no longer derive their livelihood from agriculture, though this was the rule a century ago. Today most are semi-skilled and unskilled industrial labourers who work outside their villages for the Malta Government, the

[1] *Eleventh Census of the Maltese Islands, 1948* (Valletta, Progress Press), pp. 297 ff.; and *1957 Census of the Maltese Islands: Report on Population and Housing* (Valletta, Central Office of Statistics, 1958), pp. 41 ff. The two sets of figures are not quite comparable. Those for 1948 represent the total number of illiterates, while the 1957 figures show only the number of people who never attended school.

2: Boissevain E-5 (1960-1961) 1965
EZ6 Malta EZ6

241 433 464 [178] giant dockyard in Cospicua, or for one of the various British Service departments scattered over the island. Gozo is more dependent upon agriculture, but many Gozitan men work in Malta, returning to their families for the weekend. Though Maltese villages are populated mostly by industrial workers, they have nonetheless a decidedly rural atmosphere about them, for their inhabitants still have links with the agricultural economy of the past. Many retain a patch or two of land which they plant with potatoes or some other cash crop to supplement their wages, and virtually all keep chickens and rabbits to supply them with eggs and fresh meat for special celebrations.

[231] [235] [262]

463 TABLE 1. Occupational Classes in Farrug and Kortin[1]
(Expressed as percentages of the total male working population)

Occupational Class	*Farrug*	*Kortin*	*Islands*
Professional and Clerical	4	7	15
Service and Skilled	39	52	55
Semi- and Unskilled	42	27	20
Agricultural	15	14	10
Totals	100	100	100

[433] A hundred years ago, the inhabitants of Farrug were mostly farmers, though many were also employed on a cottage-industry basis in the thriving cotton industry of the time. Today they are for the most part wage labourers. Of the total male working population, 42 per cent are employed as semi-skilled and unskilled labourers, 39 per cent work as skilled fitters and as service personnel (shopkeepers, drivers, policemen, etc.) and 15 per cent as farmers. Only 4 per cent are professionals and white-collar workers. Three-fourths travel outside the village to their places of employment, chiefly with the Malta Government and the British military departments.

The occupational structure of Kortin is much the same. The higher proportion of skilled and clerical workers is in part a reflection of its past importance as an administrative centre, for until early in this century it was the seat of the district court. Seven per cent of the men work in professional and white-collar

[1] The figures for Farrug and Kortin are based on surveys I conducted, and the national figures on the *1957 Census: Report on Economic Activities*, pp. 43–55. The totals of the male working population in Farrug, Kortin and the Maltese Islands are 296, 1,131 and 73,930 respectively.

2: Boissevain E-5 (1960-1961) 1965
EZ6 Malta EZ6

There is considerable difference in the social status ascribed to various jobs. Non-manual occupations have the highest status, manual occupations the lowest. The professionals – the priest, doctor, lawyer, chemist or teacher – are at the top; while the farmers are at the bottom. In many respects a government clerical officer is also at the other end of the scale from the farmer. The civil servant has a steady, relatively easy job with a good cash income and comfortable pension at the end. He also has ready access to influential persons in the government. His is a life of security and relative independence. The farmer, on the other hand, has been looked down on for centuries. He represents the traditional life of dependence: dependence upon the weather, the market, the *pitkal*, or middleman, for cash advances, the letter-writer and the patron through whom established authority has to be contacted. Education and wage labour have presented the farmer with a means of escape from that dependence and the exhausting labour in his rocky fields. Where he has had the opportunity, he has been quick to turn his back on the traditional occupation of his forefathers.

Wealth is another determinant of status. This is generally related to occupation. There has always been a considerable difference between the standard of living of the professionals and that of the average countryman. But until the past war, there was relatively little difference in the standard of living of most villagers. True, the more affluent lived in the large houses on the main square, and the poorer people lived in the alleys and streets remote from the square. Most people ate similar food, dressed alike and furnished their houses in the same way. But the increase in the level of wages, which followed the war, has changed that pattern. New houses, cars, fridges and transistor radios have become a tangible index of success and status. People are now being graded according to the number of these symbols they own.

Education, occupation and wealth are thus the chief criteria by which social position is differentiated. A person who has all these attributes has high status. But a person with high status is not necessarily a leader; for he may not possess the innate qualities required of a successful leader – courage, responsibility and willingness to work. Where a person has both high status and possesses these qualities – as well as ambition – he will undoubtedly

3: Buxton D-5 (1920-1921) 1922 EZ6 Malta EZ6

made of open stone pipes. On the rocks, in January, there was a wild profusion of flowering heath, of a species akin to our heather (*Erica*). Where the water overflows, there are tiny reed beds, but always smaller and less luxuriant than those of the Eastern Mediterranean. In some places on these cliffs the charlock appears to have competed successfully with *Oxalis cernua*.

The north coast is generally more shelving. There are no mountains, but the whole surface is cut by deep ravines, which are for the most part dry, but which may contain as much as three feet of water during a spate; the mouths of some of these valleys form small fiords. The western part of the island, which contains the upper coralline beds, contrasts strongly with the eastern. The hills are higher, the valleys bigger and more rounded, and the country is less parched, owing to the underlying marls. The scenery of Gozo resembles that of Western Malta, but the cliffs are higher and grander, the fields are larger, and the country is greener.

Owing to the large population every foot of soil is precious, and the whole of Malta is parcelled out into innumerable tiny fields, some hardly more than a few yards square, each being separated from the next by a stone wall. Olives and caribs grow as elsewhere in the Mediterranean, but for the most part they are limited to the courses of the streams; oranges flourish where there is sufficient water to irrigate them, but in Malta one looks in vain for the abundant orange groves of Sicily, or the pleasant tangled hillsides of Northern Cyprus. The myrtle is almost absent, the numbers of wild myrtle bushes can nearly be counted on the fingers of a man's hands. The flora (4) generally is most akin to that of Sicily; 91 per cent. of the Maltese species are found in that island, 91 per cent. in Africa, and 90·5 per cent. in the Levant (5). There are three things which are predominant in all the scenery of Malta: stone walls, goats, and the yellow flowers of the virulent *Oxalis cernua*, which not even the goats will eat.

Owing to the small size of Malta and the nature of its surface, the weather is dominated by two factors—the sea and the direction of the wind. The mean annual temperature is 66·6° F., the mean annual rainfall is 21·6 inches, precipitation normally occurring on 81 days. The mean relative humidity for seven years is 79·1 per cent. The coldest month is February (mean temperature 52·9° F.); the hottest August (77·9° F.). During June and July practically no rain falls, and in August the mean is only 0·13 mm. (6).

In working out constants, I have divided the islands into two areas—Urban and Rural. This is the division in the census (31), and corresponds very closely to a marked difference in the conditions under which the population lives. The former includes the fortified towns and suburbs, Valletta, Floriana, Cottoneria, Senglea, Conspicua, Sliema, St. Julian, Pieta Misida, Hamrum, Birchircara, Curmi, Paula, Tarxien, Zabbar, Calcara and Rabato; the latter, the more isolated villages in the country.

SECTION 1 : The Village in Maltese Rural Society.

121 369 Despite the small size of the Maltese Islands, the physical units in which the people live - the towns and villages (Map 1) - possess diverse characteristics. Sometimes administrative, sometimes morphological (i.e. pertaining to the physical arrangement of functional parts), these provide important evidence of the social and economic nature of society. The present report is concerned with rural society and with farming in the Islands where it is clear that the 'village' both reflects and shapes the character of the farmer. The historical evolution of the settlements cannot be examined here but a brief mention must be made of some important historical facts.

175 369 [361] [396] During their rule in Malta, from 1530 to 1798, the Knights of St. John built Valletta (after 1575) and founded an associated dockyard and surrounding towns. These creations have since expanded and merged to become the nucleus of modern Urban Malta. Before 1530, urban society had existed only in the capital, Notabile (Mdina)[1], and in a few large town-villages, none of which lay on the coast or adjoined the Grand Harbour. Nearly the whole of Malta and Gozo had been previously rural in that the population depended on a subsistence, peasant agriculture, with alternative employment existing only in the larger settlements or in the little harbour at the Borgo (Cospicua). Under the Knights, Valletta on the coast succeeded Notabile in the centre of the Island as capital; and the large town-villages (by pre-1530 standards) of Żebbuġ, Siġġiewi, Żejtun, and Żurrieq declined in relative importance.

[241] [464]

[161] [396] [434] [712] [707] Little change otherwise occurred until the century and a half of British rule during which the Valletta nucleus and associated townships became dominant and the increase in the population accelerated[2]. The national economy became overwhelmingly dependent on the naval and commercial dockyards in the first place and, later, on the army and air-force bases[3]. Thus the old rural settlements became relatively if not absolutely of little importance.

RURAL SOCIETY

369 241 433 It is reasonable to talk of the farming communities as being synonomous with 'rural' settlements in Malta but the position demands more precise definition. Certainly the largest part of the Maltese rural-dwelling population has been based on agriculture - whether the peasant subsistence of the past or the commercial farming of today. Peasant subsistence farming in small-holding units, supplying almost all the needs of the family working the farm, is a type of farming in which money plays little or no part. It has faded very rapidly

It has faded very rapidly
369 only in the course of the past generation in Malta to give
241 way to what may be called commercial farming in which crops,
433 animals or animal products are sold for money.

By using the 1948 Census material (B/167 - 1948, Table 53)
[178] it is possible to classify districts on the basis of the
162 proportion of the farming element within the 'gainfully-
463 occupied' section of the population as follows:
634
369
[127]

Table 1 (v. Map 2)

Urban (0-3%)		Fringe (3-10%)		Inner Rural (10-20%)	
Valletta	0	Balzan	5.48	Mqabba	10.5
Cospicua	0	Luqa	6.1	Marsaxlokk	10.6
Senglea	0	Birkirkara	6.16	Żurrieq	11.15
Vittoriosa	.008	Tarxien	6.43	Ghaxaq	11.29
Gżira	.11	St. Vennera	6.46	Attard	11.53
Sliema	.24	Qormi	6.88	*Victoria	13
Floriana	.43	Birzebbuga	7.3	Mdina	15.4
Pawla	.8	Żabbar	7.35	Mosta	16.56
Marsa	1.2	Żejtun	8.27	Żebbuġ	18.41
Hamrun	1.35	Lija	9.9	*Ghajnsielem	19.2
Msida	1.36			Gudja	19.91
Kalkara	1.84				
Pieta	2.6				
St. Julian's	2.9				

Rural (20-50%)	
Qrendi	20.25
Kirkop	22.33
Naxxar	24.8
Rabat	25.6
*Xewkija	27.7
Gharghur	29.1
Mellieha	34.73
Siġġiewi	37.63
*Sannat	39.04
*Nadur	40.9
Safi	46.87
Dingli	47.4
*Qala	47.6
St. Paul's Bay	47.72

Outer Rural (above 50%)	
*Kerċem	56.43
*Xagħra	64
*Għarb	67.81
*San Lawrenz	68.3
*Żebbuġ	70.9
Mġarr	73.3
*Ghasri	82.7
**Comino	89.47

Malta.....	9.11%
Gozo.....	41.78%
All Islands.....	12.28%

* - Gozo
** - The Island of Comino is statistically part of Gozo.

Clearly such proportional measurement is by no means an indisputable criterion for assessing the 'rurality' of Maltese and Gozitan villages but it provides a satisfactory overall basis for classification and is, as such, used in the ensuing account (Map 2).

184 Perhaps the most striking feature is the overwhelming
241 significance of agriculture in Gozo. In Malta, by contrast,
433 the Dockyard and other industrial concerns exert an
369 increasing pull towards non-agricultural employment in all
464 but the most remote districts (Map 4). Valletta and the Three Cities (Cospicua, Senglea and Vittoriosa) are the most 'urban', and the northern and western parts of Gozo the most 'rural'. An impression of the changing status of this rural (i.e. farming) element may be gained from the Census Reports since 1842 (B/167) but direct comparison is
178 hindered by differences of tabulation between the census
369 counts. However, the fact emerges that those villages

i.e. peasant subsistence farming, - Analyst

178 which are now 'rural' on the basis of the size of the farming
369 element are the old settlements.[4] The non-agricultural Urban zone is a comparatively recent growth around Valletta and the Three Cities and lacks the traditional agricultural basis of most of the Fringe and Rural areas where the villages grew little in size and declined considerably in relative importance.

178 A closer investigation of the declining relative impor-
241 tance of farming within the rural villages themselves over
433 the past hundred years (v. Appendix 1D, vii and Graph)
464 reveals that during some periods economic prosperity in
166 Malta has attracted labour away from the land but, equally, that these moves were largely temporary and that there was a return to farming as soon as boom conditions disappeared. This was the case, for example, during the last decade of the nineteenth and the first decade of the present century (B/381). Since 1931 there has been a general retreat from farming (v. Graph) along with a socio-economic emancipation of the Maltese farmer in which the traditional ties with the land have been loosened. The earlier, temporary moves lacked this social rejection of an old way of life. The farmers who left their fields for industrial work at the end of the nineteenth century were in fact never very far from the land upon which they relied as a stand-by when the boom conditions declined. Today the farmer's son, far from maintaining a foothold in agriculture, is as fast losing touch with the land as he is with the community which it supported. If a depression were to appear along with any limitation in emigration a return to the land would be less easy than in times past. This would be due not to a shortage of land for farming or to difficulty in getting work in farm labouring but to the current estrangement between farmer's son and farming, an estrangement as much sociological as economic in character.

178 The earlier temporary moves from the land were partial
464 rather than total in that bulk of farmers and farm-workers
241 who had sought urban jobs had come from the Fringe or 'Suburban' areas rather than from the Rural districts proper (B/381). The present move away is however from all parts of countryside. It is evident that both today and in the past the availability of alternative employment has been the governing factor. The earlier periods of economic prosperity mentioned brought only temporary alternative opportunity for
175 the farm-worker. In fact until the present century the
464 only large-scale alternative to field work for the rural
288 Maltese and Gozitan was cotton spinning and weaving. Even here possibilities were limited. Cotton growing and manufacture in the Islands developed fast during the eighteenth

175 century but went into decline early in the nineteenth, par-
288 ticularly after the Spanish Government prohibited all imports
464 of yarn (1800). But the industry was slow to die and is today undergoing something of a re-birth under a protective monopoly[5]. Cotton provided, during the nineteenth century, much employment, particularly for women who, in 1861, amounted to 96% of all cotton workers (B/167 - 1861). The small male labour force was mainly engaged in the beating and dyeing departments of the industry. This industry moreover, was centred in the villages and was essentially a home craft, so that the worker in cotton was never very far removed from home or farm, and field work was an alternative when cotton production declined. This decline accelerated towards the close of the nineteenth century but was not spread at an even rate over the whole of the rural area of the Islands. The total decline was due to external economic factors but, within the Islands themselves, the industry survived longest in its traditional 'core area' of Rabat and Żebbuġ. "The cotton industry persisted where the skills were greatest - where it now exists as a craft industry" (B/381).

175 However the harbour areas and the dockyard were providing
178 work and opportunity on an increasing scale towards the end
241 of the nineteenth century and during the first quarter of
369 this[6]. "The population nearest the harbour profited first,
464 and there was a spreading outwards, as more and more of the
[288] Island sought work in the port. As the attraction of the
[396] harbour area spread, so interest in the declining cotton
[504] industry decreased". (B/381) A new alternative was thus appearing and one very different in that it meant a greater break with home, farm and village than had been the case with cotton. Agriculture itself came to feel the impact of the alternatives. "Gradually the whole Island became drawn into the economic sphere of the harbour area, and the population of the rural area became less and less dependent on agriculture for its livelihood" (B/381). This is a key factor in
178 an understanding of rural Malta and Gozo today. The second,
241 considered later in more detail, is the social change which
369 has been brought about by the emancipation of the villager
241 through direct and indirect education and contact with the
433 people and ideas of the world outside. Together these two forces, the one an extension and magnification of what had happened before on a temporary basis and the other a consequence of the trend towards social enlightenment which has been a widespread feature of the twentieth-century world, have given the farmer an escape. On the economic level he has the new range of employment opportunities indicated, while his newly acquired literacy and education is making it

6:Beeley K-5 (1957-1958) 1959 EZ6 Malta EZ6

178 possible for the young countryman to follow his economic
241 shift from country to town with a social transplanting out
369 of the close-knit community of the rural village to the
241 cosmopolitan levels of life in the towns.

433 Along with the increase of employment in the dockyard
178 and harbour there has been a relative decline in agriculture
464 in that an increase in the total numbers of the farming
396 community was accompanied by a shrinking of the agricultural
433 sector within the total gainfully occupied population of the
504 Islands. The Dockyard has grown to become the largest single
369 concern and, in March 1957[7], gave employment to 12,572 Maltese workers (plus a further 417 United Kingdom nationals). The percentage of Dockyard employees in individual districts may be taken as a second possible criterion of 'rurality'. Appendix 2.A, showing Dockyard workers in March,1957, expressed as a percentage of the employed population, reveals the heaviest concentration round the yards themselves (the Three Cities) and in the Żejtun, Żabbar, Pawla and Kalkara areas of south-eastern Malta. The whole of Gozo supplied only twenty-five workers at that time - this being the same figure as for Santa Vennera, near Hamrun. Nevertheless it is significant that no part of Malta is unrepresented in the Dockyard (Map 4).

464 The workers listed in Appendix 2.A are only a part of
36 those employed in the harbour area and the towns and it is to this group that one refers when speaking of the 'draw' of the harbour area and its associated manufacturing and service industries. These include transport of various kinds, shops, cafés and bars, workshops, offices and all manner of public utilities and services.

361 It is clear that in a definition of 'rurality' the
369 occupational structure, whether considered from a farming or
162 dockyard point of view, is not the sole criterion though the most convenient. One might take, for example, the extent to which each census district is built-over. The 1957 census distinguishes 'township' areas within each district (Appendix 3). The township-dwelling population accounts, as one would expect, for nearly 100% of the total in the Urban zone, but even in the rural districts most people are seen to live within the villages rather than in isolated farmsteads. In terms of area on the other hand the contrast between urban and rural zones is marked. In all three rural zones only five districts show a built-up township area accounting for more than 10% of the total. Richardson considers this nucleated-dispersed aspect of settlement distribution for 1948 and 1931 and notes significant changes in the pattern (R/561).

565 The landed classes in Malta and particularly the nobility have never taken any considerable part in the communal life of the villages in which they maintain their country seats and draw rents from the lands which they own. They have always been more urban than rural and more European than Maltese. A [793] squirearchy on the English pattern has been lacking, and the functions which, in the English village, fell to the squire have, in Malta, come within the wide range of activities of the Parish Priest.

621 795 565 Apart from the clergy[10] and the gentry, the greater part of the population of the traditional village in Malta was made up of the peasantry deriving their livelihood directly or indirectly from the land or in some cases the sea. Within this section of the community homogeneity was the keynote. There was one Church. All the populace were Church members and attended the same services at the same times each day of every [203] week. The Church could therefore be the centre of diffusion of news to the villagers - both relating to farming and to general affairs in and out of the village.

621 565 241 423 [611] [591] Within the village the peasant and his family, patriarchal, patrilineal and patrilocal, worked the few tmien of land held on rent or lease: rarely was much of it owned by the cultivator. The work of the farm and of the household went on as a single unit (Section 2). The two were often located within the same cluster of buildings (Case VI, v. Plan). Clearly some farmers were richer than others, some had more land, some more animals, but accepted stratification within the village went no further than this: there was no middle class between priest and farmer.

628 197 For the peasant, the bounds of his regular experience were the limits of the village. Contact between villages, even where close together, was slight and invariably less than that between the individual village and Valletta. Evidence of this is found in the dialect differences between villages but equally illuminating is the fact that the basic dialect distinction that can be made is that between the Urban area, with its Italianized vocabulary and intonation, and the rural parts of the Islands with their characteristically broader vowels, harsher gutterals and fewer European words and idioms (B/Aquilina, J). Language is but one aspect of rural culture in the Maltese Islands which reveals the essential independence of the village within the traditional rural scene. Village patriotism is expressed in inter-Parish rivalry and in a variety of regional reputations, proverbs, and local lore. Thus the shrewdness of the inhabitants of Rabat is revealed by the saying that "A man from Rabat is worth two Jews"[12]. The men of Żebbuġ (Malta) are acknowledged to be merchants par excellence however, while those of Qormi

628 186 [794]

[Village of Mgarr]

By the mid-Thirties Mgarr had become independent of Mosta as a Police area and had been connected to the Telephone network[15]. Other amenities to reach the village about this time included a number of levelled roads, although asphalting did not appear until after the 1939-45 War. During the War years most construction activity was halted. Some 700 refugees from the blitzed harbour areas were billeted in the village; thirty shelters were dug, and about 600 bombs fell in the vicinity of the village destroying two houses and killing three people (B/291). United States' forces camped near Mgarr prior to the Sicily invasion: an Italian aircraft crashed not far away. Mgarr heard about the war and experienced as much of it at first hand as most other rural parts of the Islands lying well away from the Dockyard, air bases and other strategic targets. Food rationing and Government control of production put the farmers of Mgarr in as strong a position as elsewhere but at the worst period of the siege even they were reduced to chewing carob beans[12].

By the advent of the present decade Mgarr had acquired the normal characteristics of community life of village Malta, with Church, school, police station, dispensary and doctor, telephones, and roads. The built-up area has since expanded rapidly. In this present decade, too, the village has gone on to 'catch-up' with older settlements to the extent of establishing the four branches of the Catholic Action movement (Appendix 4). A most modern and well-appointed 'oratory' has for five years been the focal point of Catholic teaching and social work in the Parish. Its theatre holds 700 and shows films on Sundays and special occasions. More recently a commercial cinema has opened in the village but, one understands, it cannot detract from the popularity of the oratory film show.

Within the past few years, shops have appeared in the village which is now independent in this respect for food and general items. Travelling vans, a prominent feature of the countryside, further swell the range of goods available on the spot and are joined in this door to door service by the weekly paraffin (petrolju) vehicle. For other items Mgarr housewives still make the journey to Mosta or Valletta on the buses which operate every few hours; a generation ago their mothers carried bread on their backs each week from Mosta, the parent village.

On account of its recent development, Mgarr lacks certain features found in the larger and much older settlements. The Catholic Action is the only Lay Movement in the village - though it is notably active there, and of the Confraternities which are numerous in the older settlements Mgarr has only Three (Appendix 4).

361 Mellieha (1841), Mgarr (1898) and St. Paul's Bay (1905).
175 In Gozo seven new parishes appeared in just over a century:
103 Ghajnsielem[19] (1855), Qala (1872), Kerbem (1885), San Lawrenz (1893), Fontana (part of Victoria, 1911), Ghasri (1921), and Munxar (1957; v. Sannat, Map 1).

17 In the period reviewed the major development has been
361 the emergence of Valletta and the Three Cities under the
369 Order and the tremendous urban extension in the nineteenth and twentieth centuries. The town-villages of medieval Malta, looking inwards to Rabat, grew quietly but were eclipsed by the youthful Valletta and remained agriculturally and socially isolated. In recent generations the economic 'draw' of the towns and the harbour area penetrated the Fringe zone and then the Rural districts, bringing all the countryside in some measure within the economic sphere of the towns. This has been accompanied by the education and emancipation of the rural community which tends to blur the line of demarcation between townsman and villager. Thus an adequate definition of 'Rural Malta' becomes increasingly elusive.

SECTION 2:- The Farmer and Farming

128

DEFINITIONS

In much the same way in which the terms 'rural community' and village' need examination before they can be used in socio-economic analysis, so too, in Malta, do the meanings of 'farmer', 'farm-holding', etc., even as used in official reports, need elucidation.

128 The definitions of such terms made by Mitchell (R/525)
241 have been accepted by the present writer. The 'farmer' is
423 the "owner or holder of the land which he cultivates either
[114] individually or as the principal person of an agricultural enterprise". "The land worked by the farmer and his group of helpers constitutes the 'farm holding' or 'farm'. 'Holding' here implies simply the land held by the farmer, and is not used in a synonomous sense with the legalistic 'tenement'. There are excellent reasons for maintaining a clear distinction between the two terms for, on the one hand, a holding may consist of many different tenements held by the farmer of as many landowners and, on the other, a legal tenement may be occupied by more than one farmer.
311 Confusion may also arise, in this connection, from the fact
423 that a holding may contain freehold as well as various types of leasehold land". Mitchell continues "Most farms include land of more than one category, and especially in the north

already unbalanced total Maltese economy.

The first aspect of the problem is apparent from the points of definition just made. This is the complex of features which have produced the present landscape of tiny field-plots covering the cultivable parts of the Islands with a patch-work of small farms, each consisting of widely scattered pieces of good, bad or indifferent land. The farmer whose lands form one block is very much the exception. Yet although the number of constituent plots is often large the average area of the Maltese farm is very small ("Over 55% of the total number of holdings appear to have less than 9 tmion of cultivable land"; B/164 - 1957, p. x) and in many cases is patently insufficient to supply food for the family concerned as well as produce a surplus of crops or fodder (Case V).

The obvious solution of acquiring more land is not always possible, as illustrated by Case V where present and new building severely limits the extent of cultivable land in the vicinity. Moreover much land is going out of cultivation because the hand work required to maintain it is not forthcoming under the current wage/labour conditions. Many fields were built on inaccessible or barren patches of rock in days when manual labour was readily available and cheap, much of it unpaid family labour. Terrace walls were constructed expertly and soil tediously carted, levelled, tilled and irrigated. But while mechanization, particularly in the form of now popular small rotary cultivators, is enabling a smaller labour force to cope with more work over much of the Islands, some of these man-made fields defy even this kind of development on account of their small size, tortuous shape or inaccessibility. The terrace walls are neglected. A sudden storm removes a wall section and the soil which it hold in place collapses over the terraces below and into the 'wied' bottom whence, in associated flash floods, it may be swept seawards.

The tenurial aspects mentioned (B/525) complicate this picture since they make for further divisions in an already minutely parcellated lay-out. Moreover a farmer is frequently deterred from making improvements on a pie e of land if he lacks security of tenure (Case IX): he concentrates any capital outlay on the patches of ground which he either owns himself or has on long lease and which show the necessary conditions of size, accessibility, irrigability (Case XI); or which provide suitable sites for building (Case I).

Part-time farmers are an increasingly important feature. They neglect or relinquish unprofitable land even more

241 423 rapidly than does the full-time farmer who often seems to continue working unpracticable fields, which, by present standards, are uneconomic. He continues to work them for reasons which are a mixture of sentimental attachment, force of habit and, quite often, stark ignorance of the fact that the plots concerned are bringing him loss rather than profit. He does not indulge in cost-accounting.

241 464 433 This is the background to the present attempts to rescue Maltese farming from its two main difficulties:

(a) a drastic reduction in the agricultural labour force due to the retreat from the land, especially by the younger generation,

[654] (b) the fact that contemporary Maltese farming cannot produce a profit without subsidies and protection from foreign competition.

654 241 464 The answer to the labour problem is held to be mechanization, along with the education of the farmer in the use of better suited methods, crops, animals, etc., and maximum development of the land by means of low-interest Government loans to farmers. The accepted answer to (b) is in fact not an answer at all but entails the creation of an artificial farming economy in which Government subsidies and guaranteed markets enable the farmer to make some profit where he would otherwise sustain a heavy loss. The cost of this is the price which the Government is willing to pay in order to develop the Islands' only primary industry to the maximum and to encourage the farming community to remain on their farms.

The limited scope of these solutions emerges from the discussions of labour, mechanization and protective subsidies and guarantees which follow.

LABOUR

178 462 [592] The decline of the peasant system in Malta and its replacement by what has been called commercial farming has been accompanied by changes in the family as the operating group within the farm. There has been no strictly formal division of labour by sex in Malta[20] but there is an 'accepted' division and this is important to an understanding of the present socio-economic upheaval in Maltese rural society.

562 462 178 In traditional and peasant Malta woman's place was certainly in the home. An old adage held that "Women should never appear but twice in public: the day they are married and when they are buried" (B/326, Vol. 1, p.80). Even today the countrywoman, especially in Gozo, still divides her activity between home, Church, and the fields worked by the

462 family, while her daughter, literate, emancipated and
562 'progressive' by contrast, wants to take up paid employment
178 outside the home or even outside the village and insists on a greater measure of social intercourse than would have been proper for her mother.

462 The home and the care of the children remains the sphere
178 of women and girls. The menfolk took part in such work only in exceptional cases, such as illness. Nowadays the men are often more inclined to interest themselves in this side of family life but, as often in a discussion of this nature, the range of divergence of practice defeats generalization.

178 Until recently it was customary for most women and girls
462 to work, unpaid, alongside their menfolk in the fields,
288 especially when work was pressing as at harvest time.
464 Furthermore cotton was the work of women in most stages of its preparation (Section 1), while lace was almost entirely the work of women - particularly those whose age or infirmity excluded them from field work. Cotton is now of minor importance and lace-working is confined to the older
178 generations. The employment vacuum thus created is now
464 partly being filled by young women and girls seeking employment away from the family in clerical jobs, retailing, teaching and domestic service. Fewer work as hired farm-labourers than was the case a generation ago. Yet there remains an increasing number of unmarried girls today, educated far beyond field work, who cannot find employment to suit their aspirations or qualifications, whether because of the scarcity of suitable posts or on account of the attitude that persists in labelling paid employment fo a girl as somehow improper (Case I). Married women are, in any case, discouraged from taking or retaining paid employment throughout Malta (B/598).

241 Some farming families still retain the traditional
462 pattern of field work by the whole family (Case XI);
[178] others do not (Case VIII). In some cases the women and girls work occasionally with their menfolk (Case II). In the fields they are given hoeing, planting, reaping and picking jobs but heavier work and jobs considered skilled, such as spraying with insecticide, are left to the men (v. Case I on the division of family labour).

241 In general it appears that as the younger age-groups
592 are educated and emancipated unpaid field work is avoided.
[178] The only remuneration noted was limited to small 'pocket-
[465] money' donations and even these went to sons working full-time with their fathers (Cases X, XI) and not to daughters. Here then is the problem. The farmer is faced

241 592 (a) with the labour of members of his family limited, in many cases, as far as the women and girls are concerned to casual assistance and to grudging work by his sons until they can find some paid employment away from the home farm, and

241 464 [461] [465] (b) with the high cost of non-family labour at between £1 and 30/- per eight-hour day where a member of the family would have worked from early morning until sundown. Moreover the supply of hirable labour is by no means great nor readily available and, unless a general economic collapse forces a return to the land, there are no indications of any improvement in the position. Rather is agricultural labour likely to become scarcer and more costly.

241 [461] The problem is considerably aggravated by the fact that as already suggested, the particular characteristics of Maltese farming demand an intensive application of manual labour, both in the maintainance of the more precarious fields as well as in cultivation. Something of the detail of this need emerges from a consideration of the timetable of the Maltese farmer both as regards the annual cycle of activity and the daily round of farm-work.

TIMETABLE

221 241 The timetable of the Maltese farmer is more diverse and varied than is at first apparent. It is convenient to distinguish the daily timetable proper from the annual calendar of events. Under traditional peasant farming conditions there appears to have been a much greater degree of uniformity but as farming has been 'commercialized' so has the range of variety increased.

175 178 221 241 The peasant field-tiller depended on climate, on the crop cycle and on the sun. The year's round of field-work a century ago is recorded in an 1849 "Calendario dell'Agricoltore" (B/355) which listed the major farm activities of each month along with short articles on subjects of interest to the farmer of the time. Many of these topics, such as silk, olives, aniseed, cotton, honey, almonds, and tobacco, would not merit such prominence in a modern version of the Calendario[21]. [234] [233] More striking still is the emergence, since 1849, of dairying and stock-rearing, which was scarcely mentioned in the Calendario but has more recently grown to first importance for a large part of the farming community.

178 241 Changes of such magnitude over the century can be expected to affect the routine of farm-work and of village and family life. In the mid-nineteenth century, Maltese farming was still very much more 'peasant' than 'commercial' and the change between then and now becomes clear when a

178
241 modern calendar of events is considered.

As random sample illustrations three farmers' accounts of their own work during 1957-58 are analyzed[22]. At least they reveal something of the variety that now exists between one farmer and the next.

241 (1) A full-time field worker (Case X) usually working
461 with his brother and a nephew and having some irrigable land.
221 An analysis of the routine of this man is given (Case X; E, v. Work Analysis) and, from the same material, Mitchell has made a detailed study of time/labour utilization (B/525). A summary of this, which is on the basic of the ten hours per day worked by each of the three men over the year 1957-8, is also included in Case X.

(2) The second example relates to an arable farmer mainly concerned with irrigated produce (Case XI; E, v. Work
[592] Analysis). This man is helped in the fields by his wife and family. The analysis illustrates the main features of this 'irrigated' farmer's year (although in the year studied there was an exceptional loss of time in the Autumn due to storm damage) and should be compared with (1) above. Irrigation accounts for about a quarter of the months May-July but occupies a mere two afternoons in the period November-February. Cutting and reaping accounts for even more time in July than does irrigation: by October plowing is the largest single item apart from "No work (storms)". In November, planting and sowing account for slightly more time than "collecting greenery" and is by far the main work of December (potatoes). General cultivation work occupies much of the next two months but pruning and grafting of vines is the biggest single item of February. The parallel between this and (1) is clear, apart from the special emphasis, on fruit - largely apples - in the former case.

234 (3) A Goats' milk producer with subsidiary cash-cropping
221 (Case II; E, v. Work Analysis) provides the third
461 sample study. In 1957 - 58 this herdsman spent all but thirty afternoons "grazing the goats" - on only one Sunday or 'festa' day did he not go out with his animals. This illustrates an important feature. While Sundays and Holy Days are normally kept free of field-work, work with animals has to be allowed. The herdsman is consequently much more tied to his farm than is the predominently arable farmer. He has a set daily schedule of feeding and milking the animals and cleaning out their stalls, etc., and can expect to have to adhere to this especially if he is working alone or with very little help. In fact the herdsman spends a considerable amount of his working year on

234 (i) the grazing mentioned,
(ii) cultivation of fodder crops,
221 (iii) tasks connected with the animals such as collecting
461 milk receipts from the M.M.U., cleaning, building and repairing accommodation for the animals, taking animals for slaughter or caring for them if sick.

And this emphasis is even more strongly seen among the increasing number of dairy farmers in Malta relying on cows rather than goats, as a result of current guaranteed milk sales.

The essential difference between herdsman and field-tiller is, thus, that animals require constant attention throughout the year and demand a much more rigid daily schedule. In (3), care of the animals directly or indirectly takes the greater part of every working day.

221 The annual calendar of activities reflects the way in
24 which the farmer's life and work are bound up with the
178 elements which govern his environment. The storm damage of
181 late, 1957, a serious economic set-back, was regarded
[731] fatalistically by the farmer. As soon as possible the normal routine of work was resumed and losses accepted with a great deal of talk but little action. The differences between the annual farming calendar of 1849 and that of today, illustrated by the above three examples, have included the extension of one crop at the expense of another. But even the reasons for such basic changes as the replacement of cotton by potatoes were not understood by the farmer. Cotton, for example, had become so firmly entrenched that only in face of impoverishment was it relinquished. The illiterate farmer suspects any innovation with which he is not familiar on the principle of "Better the evil you know than that you know not". He lives in a world where he sees himself fighting against forces over which he has no control. These include the climate, the Maltese economy, foreign trade conditions and, particularly, "them" - otherwise "Il-Gvern" or the Government and officialdom in general. He is also competing with his fellow farmers, but with the ways and wiles of these he is better acquainted.

24 This whole question of mental 'attitudes' to external
46 factors is held to be crucial in a study of illiterate
178 or recently-illiterate farming folk and is given further
181 consideration (Section 4). Suffice it at this stage to emphasize its importance in understanding the apparently illogical or irrational element which creeps into such a basic part of farming as the use of time. This becomes clear when a detailed cost-accounting of man/hours against productivity is made. Much of the work done is uneconomic in the sense that a great amount of time is spent with no

241 direct result. The farmer in (1) spends more than a
461 fortnight each summer gouging tree pests from his apple
178 orchard, a tedious and monotonous task for which the cost
181 would be enormous if any account were made of the labour involved. He has always accepted this task as one of the essential jobs in his fields, presenting itself each year as regularly as the seasons. Today he is wondering whether the same result might not be achieved within the space of a few hours by the application of some spray treatment (Case X).

241 This is certainly not to suggest that the Maltese
461 farmer has ever consciously wasted his time. The opposite is the case. Visitors to Malta and Gozo since the eighteenth century have been full of praise for the farmers of the Islands and for their diligent industry. The fact is that the physical limitations of the fields and farms are such that agriculture in the Islands has been maintained and developed only by the application by the farmer of meticulous [464] hand-labour. Today a critical shortage of this very labour is producing a state of doubt and tension in the industry. The question is being posed as to whether some forms of mechanized development can replace traditional manual labour. In view of the characterisitcs of the rural landscape of the Islands possibilities seem limited.

241 The farmer's daily timetable, with its long hours of
461 monotonous toil for comparatively little remuneration, is
178 producing a younger farming generation embittered with their inability to do a day's work on the farm in eight hours only and frustrated because independence - in their terms - is denied them. They are tied to the farm and the animals and unable to take as much leisure as their counterparts in 'urban' jobs. Independence for them implies the freedom to take time off from the farm in which to make themselves socially as 'urbanate' as possible. Independence for their fathers' generation is not the same thing. Here is seen a vestige of the traditional peasant way of life which was essentially independent in its family and village self-sufficiency. Thus the old farmer's concept of independence is the ability to rule himself and to work his long hours as he inclines. The liberty to sit with his goats between siesta and sunset, with no foreman and no questions, is in fact part of the attraction which keeps the older farmer in farming at all. It is by no means the whole story because he knows well enough that in his case it is too late to think of acquiring any of the education which he sees as the key to things better than farming. The younger generation do not see things in this light at all and regard their education as a means of escape (Section 1).

as a means of escape (Section 1).

The nature of the farmer's daily timetable depends on
(a) the type of farm-unit involved,
(b) the labour force available,
(c) location,
(d) season.

The farmer's day begins, on average, between 4 a.m. and 4.30 a.m. Extremes are found in the case of herdsmen who often rise much earlier - at 2.30 a.m. in the case of the Gomitan with a large herd of cows and only a limited milking labour force, or after 5a.m. or 5.30 a.m. for a herdsman whose farm is close to an M.M.U. collection depôt. The M.M.U. require herdsmen to deliver their milk at such a depôt for transportation to the pasteurizing centre at Hamrun or, in Gozo (after 1958), to the new milk centre at Xewkija. Before this latter addition to the milk industry, which is expected to cope with all the Gozo-produced milk in both pasteurizing and other processes, it was possible for a herdsman (Case I) in north-western Gozo to have to rise as early as 12.30 a.m. Generally, in the summer, reveille for the field worker might be an hour or so earlier than in winter so that he and, even more, the herdsman might expect to begin most of his working days in darkness.

The first event of the day for many country people is Mass. Some are regular attenders at one of the services between 4 and 6 a.m. Others, living further from a Church or having very heavy commitments of work, are less so. Field workers frequently take the Mass on their way to the work of the day (Case X).

Breakfast is invariably a very light meal of little more than bread and tea or coffee. It is taken sometime between reveille and about 9 a.m. and does not constitute a major halt in the work of the farm. Milk producers in most cases do not breakfast until the animals are milked or even until they return with their carts from taking the churns to the M.M.U. collection depôt in the nearest village.

The main meal of the day is lunch, taken somewhere between 10.30 a.m. and 12.30 p.m. and followed by a siesta of up to three hours. The herdsman's siesta is less flexible than that of the farmer for a 1 p.m. afternoon milking limits the time available. The milking over, the goat-herder takes his animals out to graze on a suitable patch of waste ground or stubble until 5 or 6 pm. - or later in the summer (Case II). The milk is taken to the collection depôt with minimum loss of time especially in hot weather. In the case of the herdsman with cows there is clearly no question of grazing these animals (Case VI), except in one case (Case IX).

000except in one case (Case IX).

241 234 512 264 262 The evening meal is generally smaller than the lunch although consisting of much the same elements - a thick stew ('brodu' or 'minestra'), along with bread, cheese, fruit, olives, tomatoes, etc. The consumption of meat and fish is in part governed by religion and in part by price and availability, though meat certainly figures much more prominently in the rural diet than formerly. The meal is taken soon after the return from the fields, about 6.30 p.m. and is followed, an hour or so later by the saying of a family Rosary before retiring for the night about 8.0 p.m. In Gozo there is a tendency for people to rise, eat, work and retire to bed rather earlier than in the larger Island and the smaller villages are usually dark and quiet by 7 p.m.

241 234 512 Apart, therefore, from external factors, such as M.M.U. collection or Church service timings, the daily timetable of the farmer and the herdsman depends to a large degree on his own volition. He knows what work is outstanding and can decide how and when he will do it within the limits imposed by the season, demands of animals, and so on. Thus, at a peak period of field-work, such as harvest, the farmer and his assistants may work on until the late evening - even through the night. During exceptionally heavy rains, as in October 1957, work on anything approaching the normal scale is, on the other hand, impossible and the farmer's day becomes one of doing what he can and complaining copiously meanwhile.

244 512 461 Midge (B/516, p.236), writing in 1840, was impressed by the regular and assiduous labour of the Maltese farmer, even during the heat of the summer sun. "Il semble impossible, au premier abord, que le paysan maltais puisse résister aux chaleurs intenses de l'été. Cependant, au milieu des champs, dès le lever du soleil, on le voit, exposés a ses brûlants rayons, continuer tout le jour ses pénibles travaux. Il fait deux pauses: la première a huit heures; il se repose alors une demi-heure pour déjeuner; la seconde à onze heures; c'est l'instant de son dîner frugal, après lequel il se repose de nouveau jusqu'à midi en hiver, et jusqu'à une heure en été, tantôt à l'ombre d'un figuier, tantôt au pied du petit mur qui entoure le champ, la tête couverte d'un bonnet de laine, et le reste du corps exposé au feux du jour. Il reprend ensuite ses travaux avec la même vigueur, et ne se retire qu'au signal donné par la cloche de son village, c'est à dire au coucher du soleil".

572 241 234 178 The essentials of the daily round of the farmer have changed little since Midge wrote except in so far as the tremendous increase in the importance of stock-rearing and

178 241 234 512 milk production (notably the growth in the number of dairy cattle in the Islands) has produced a new kind of operator in Malta, the cows' milk producer, for whom field work is secondary and then based primarily on the production of fodder for his animals and fruit and vegetables for the family.

512 527 796 [241] [234] Sundays and Feast Days bring a break in the routine. Work in the fields lapses but animals still have to be milked and fed. On festa days the whole village goes en fete and to Church. A procession of religious images, members of religious orders, priests, penitents and others to the accompaniment of fireworks and brass bands blaring through the bustle in the narrow streets and alleys fills the evenings of these not infrequent days of festa, fast and feast. These Holy Days and holidays have been the traditional breaks in the round of hard and heavy working days. The present younger generation still enjoys the merriment and processing of these occasions but the Band Clubs have lost for them something of their position of fifty years ago, and the cinema and bright lights of Valletta provide alternatives and additions to the range of possibilities. The young villager of today wants time off not only on festa days but on ordinary working days as well.

[178] [575] [461]

527 796 562 575 The village festa is a communal celebration. Both men and women can share in the religious and social aspects. The Band Clubs established in the most villages during the past hundred years have however been solidly masculine (B/521). Other recreations of the farming community are

517 largely masculine pastimes such as shooting small birds, gossipping in the village squares and bars or at the M.M.U. collection depot, watching the races at the Marsa course or arguing prices at the Sunday morning market 'Fuq il-Monti'

517 443 in Valletta. In Gozo the big assembly early each Sunday morning in 'It-Tokk', the main square of Victoria, is the scene of much buying, selling and talking by villagers from all parts of the Island who come each week to the capital but rarely visit other villages. The focal pattern resembles that in Malta, where the bus routes converge on the Urban area and Valletta but provide comparatively little inter-village transport (B/381).

[184] [494]

178 241 Dissatisfaction with the way of life outlined above, whether for economic reasons (the small remuneration per man/hour of effort), or social considerations (the low status of the farmer, fisherman and other country people) is producing a younger generation anxious to escape if at all possible from following in the footsteps of their fathers and, thereby, accentuating the problem of how the farms of Malta and Gozo are to continue operating.

178 241 farms of Malta and Gozo are to continue operating.

It is hoped that some at least of the answer to this problem will come from co-operation and mechanization. The first implies the pooling of labour resources of individual farmers while the latter includes the whole range of developments leading to a replacement of hand labour, as far as possible under Maltese conditions, by machinery or by more efficient implements.

CO-OPERATION

241 476 Co-operation in field work between farmers is not new in Malta[23]. It is either permanent, where two or more farmers combine with each other to work a single farm unit, sharing profits and expenses, or temporary, as when two or more farmers share the use of a threshing machine at harvest.

An example of the permanent type is a case (Case VIII) where five brothers work one farm-unit as a team with one of their number being something of a primus inter pares. This [234] is an efficient and profitable arrangement with a substantial income accruing from the herd of some thirty head and the 70 tmien of land worked by the partnership.

Another case (Case XI) is that of two unrelated farmers working one farm-unit as partners after a lifetime's friendship. So completely are their resources pooled that it is not always clear what belongs to the one and what to the other. With their respective oldest sons (teenagers) these [233] two men operate a holding of some 100 tmien and have in [234] recent years joined in the change-over from goats to cows. Their joint herd now numbers some forty head, but as an economic unit is in a much inferior position to that of the first example.

A third example (Case X) shows two brothers working the fields held by them together but maintaining clear distinctions as to which brother owns which plot. This association has also endured for decades and now includes the full-time assistance of the oldest son of the brother.

An example of a temporary association is that where two or more farmers combine to thresh the grain of each man in turn, six being the optimum number for a threshing team which normally includes the owner-operator of the hired [178] threshing machine himself working as one of the team. In the days when the traditional threshing floor with the mule and hand-winnowing was the standard method of threshing (as before the 1939-45 War) different farmers would also join and help each other at the harvest. (Today this threshing floor method is confined to cases where a long straw is required.)

000 Direct hiring of implements from a contractor as against

241 Direct hiring of implements from a contractor as against 30.
474 exchange of labour between farmers is becoming increasingly common, while a recent development has been the tractor co-operative in which a number of farmers share a cultivator or tractor which they own in common.

MECHANIZATION

178 The first large tractors made their appearance in Malta
407 in the 1930s (Case XV, XXII) but "at that time there was a general feeling against the use of such machines on the land and it was about five years before their value was acknowledged and suspicions overcome"[12]. One of the earliest [427] tractor-hire businesses (Case XV) began in 1935 and for a [422] decade there were comparatively few competitors. Since the 1939-45 War however, the number of farmers and others owning agricultural tractos and mechanized implements[24] has increased to about thirty in Malta[25] and some twelve in Gozo (1957). A sample survey of these tractor operators[26], made in 1957, revealed that the number of such machines is still increasing but the work available for them is decreasing. This is clear from a consideration of the points raised in Cases XV to XII (Section 6, Part 2).

The main points emerging were

(a) There are too many large tractors for the work available. In some cases, Government control was recommended (Case XVI), while in Gozo it appeared the contractors had themselves limited their own spheres of operation by agreement (Case XXII).

(b) The great increase in the number of hand-operated rotary cultivators was fast putting the large tractors out of business for two reasons

(i) the machines are small, more manoeuvrable in tiny fields and can be used during the greater part of the year - even in wet weather,

(ii) costing only some few hundred pounds they can [654] be bought by large numbers of individual farmers - especially since low-interest loans are now available from the Government.

(c) The limited area of land suitable for working with a deep-plow in the Islands. Many fields are too small or too inaccessible for such big machinery - though they can comfortably accommodate the small rotary cultivators.

(d) The exclusion of tracked vehicles from public highways (unless 'shod' or moved by lorry) irritates the contractors who frequently have to travel long distances between asignments (Case - XVII).

407 474 with the setting up of co-operatives which would make available to the farmer the services of a heavy tractor and deep-plow on hire as required and would enable the very small-scale farmer and the part-timer to hire the smaller type of cultivating machine at low cost in cases where he does not wish or cannot afford to purchase his own cultivator.

SUBSIDY and GUARANTEE

435 241 654 During the 1939-45 War the Maltese Government offered farmers in the Islands very high guaranteed prices for produce handed in to the collection centres in each district. Farmers enjoyed for a brief period prosperity they had never known before and were able to build up often considerable financial reserves (Cases VI, XII).

434 435 241 654 Following this precedent the farmer today, under quite different conditions of competition from abroad, demands a guaranteed income for the work he expends on crop and milk production. He insists that responsibility for this subsidy and guarantee falls, as in war-time siege years, on "Il-Gvern", the Government. He overlooks the fact that his produce cannot in many cases hope to compete with foreign goods on price. He is in fact not concerned as to who buys his produce so long as "Il-Gvern" organizes its export and marketing and gives him a substantial return.

654 The Government, for its part, realizes the difficulties which the farmer in Malta and Gozo has to face and is thus confronted with a choice of policy. Should it favour the consuming Maltese public by giving them the cheapest possible foodstuffs (which would often mean imported goods rather than Maltese home produce) or should it protect the farmer by subsidizing his profit and guaranteeing his sales - at least in part? Official policy has of recent years tended to do both these things. The ration of basic commodities (bread, sugar, farinaceous paste, and butter) allows everyone in the Islands to obtain a part of the food they consume at low, subsidized prices, over and above which they are at liberty to buy on the open market.

The aid-to-farming programme is still more recent and is by no means yet old enough for all its ramifications and possibilities to be clear. So far it has included four main types of help to agriculture.

234 654 (a) First there is the guaranteed price to herdsmen for milk (of adequate fat content) supplied to the M.M.U. This varies slightly with season and there is a difference of a few pence between cows' and goats' milk. The average of some 5/- or 6/- per gallon to the producer amounts to some 8d per pint produced. Now the M.M.U. sells

242 and information centre to which the farmer may turn for
654 advice and material help. Much discussed by the farming community in 1958 were the plans for a proposed artificial insemination centre to help in the improvement of stock in the Islands along with the provision of an efficient stud (Section 4). The early stages of the Advisory Service are outlined in B/252.

178 Thus a lot has been done and a great deal more said
241 about farming in Malta and its improvement and modification
654 to bring it more closely into line with present conditions
181 both in Malta and abroad. The farmer's characteristic conservatism has to be overcome at every stage (v. Section 4)
[234] but where he sees a clear prospect of quick profit he is not slow to move. The outstanding example of this is the guaranteed milk sale through the M.M.U. which, in the space of a few years, has produced a revolution in dairying in the Islands.

433 The herdsman is not concerned with an increasing milk
654 surplus in the Islands as a whole. While the guarantee
234 remains he will continue to put every effort into selling more gallons each day and to subordinating cash-cropping to fodder production in his fields (Cases I to IX). It is certainly keeping him in farming but it is not, apparently, having the same effect on his son.

SECTION 3 : The Farmer and Living Standards

MONEY

433 In the early nineteenth century the Maltese farmer was
434 a 'peasant' in the sense that he was engaged in small scale
178 subsistence farming with the help only of his family.
[175] Economically and socially he saw little beyond his family, farm and village. There were very few wants which could not be supplied at home, or at least within the village. In 1958 one heard of a now almost mythical Maltese countryman of a hundred years previously whose annual expenses in terms of money totalled 6d : 3d for paraffin and 3d to have his horse shod! Today, the farmer who spoke thus of his predecessor receives about £300 for the milk which he sells each year (Case I) as but one item in a present annual turnover of several hundred pounds which characterizes modern 'commercialized' agriculture in Malta where the farmer produces for sale. He still provides much of the food for his family but he is no longer a peasant.

178 Thus the place of money provides a basic distinction
436 between the present 'commercialized' position and that which
437 prevailed under traditional peasant farming. A century ago money and financial transactions in general featured only

178 his income from milk sold and expenses on fodder during
234 nine months of 1957 (Case V, Summary) illustrates the
434 progress of this debt. He looks back nostalgically to
426 the days when his father sold milk from door to door in
[654] the Urban area and complains bitterly of his present poverty. Incongruously, however, he insists that he fully realizes that without the present Government guarantee (through the M.M.U.) he could not operate at all. He probably does realize this.

(b) Another case of operation within permanent debt is provided by two cows-milk producers who work together as a unit (Case IX) with three dozen head of cattle and a total area held of about 100 tmien used primarily for the production of fodder for the herd. They claim that the debt factor makes it impossible for them to organize their farm and herd as they would wish. For example, while they fully realize the profit to be gained by rearing calves and selling fully grown animals, they are in fact forced to sell even female calves (which they would otherwise keep) in order to pay instalments towards the cost of cows or to pay off part of the debt outstanding to the fodder merchants. This debt position makes them reluctant to take on any further loan commitments; nevertheless the Government loan offers at only 1% are definitely attractive, as a means whereby they would be able to increase the number in their herd and also mechanize their field-work without making their debt
178 position appreciably worse. Behind all this it is clear
234 that they are basing all their hopes on the guaranteed milk
434 price offered by the M.M.U. and they are therefore intent
654 on accumulating animals and thereby supplying the M.M.U with as much milk as possible.

They have no thought or care as to what might happen were the official guaranteed price to go, along with the subsidy which supports it. In fact they have singularly little appreciation of the total picture of which they form part and will be content to grumble quietly and ignorantly as long as the present artificial situation
[212] brings them a steady income. They are both illiterate (Case IX).

(c) An illiterate farmer and herdsman (Case VI)
178 keeps no accounts of the finances of his farm working.
434 The money of the household is "kept in one purse" from
454 which all expenses, farm maintainance and improvement,
234 household expenses and all 'extra' items such as the
654 provision of dowries and wedding costs, etc., are met.
[451] This farmer admits to having been able to save more than £1000 as a result of the 1939-45 War but observes that today they "have a hard job to earn the daily bread". He claims that the savings had all gone by 1958 - partly on improvements to the house but mostly on the purchase of cows as part of his grand design to join the hundreds of other farmers in Malta and Gozo striving to ride on the crest of the wave of the M.M.U. guaranteed price for all milk produced. It is held that this pattern is typical of Maltese farming, and particularly dairying, today. The main energies of the farmer are devoted to making as large a profit as he can while the artificially-supported market for milk is maintained.

178 (d) A literate part-time farmer (Case XIII) keeps
434 accounts of the working of his farm. His second employ-
241 ment brings him in over £5 per week for all but a few
[511] weeks of the year and at the expense of only a small amount of his time and effort. In a normal year he reckons to make an income of about £450 of which about a third goes in costs of seeds, transport and manure, etc. and a further £50 in hiring labour. On account of the steady income from his other job farming has something of the quality of a hobby, a pursuit to be followed

178 434 241 because he has always been used to doing it and one which enables him to provide many of the food items needed by the family. Moreover he feels that his sons, who emigrated some years ago, will eventually wish to return to Malta and will be still enough attracted to the way of life which bred them to want to cultivate a small piece of land themselves during their retirement.

For this man, therefore, farming lacks the character of the bitter struggle with debt which it has for (a). To this extent he is typical of the large and growing number of part-time farmers in Malta today whose livelihood is provided by their non-agricultural job but who maintain a sort of residual interest in the land both as the source of 'extras' and as a link with the farming community from which they are but one generation, or less, removed.

156 241 426 The link with the land, mentioned under (d), gives both the full- and the part-time farmer a sense of independence to which he clings despite the inadequacies of farming from the economic point of view. This sense of independence is revealed in cases where the farmer is not prepared to consider taking a loan, even from the Government at only 1% interest, partly because, as he says, he is "not used to it", but rather perhaps because the variable fortunes of farming (crop failure, storm damage, market fluctuations, etc.) might make him unable to continue payment of the interest on the loan. He wants to be beholden to no-one. Even the house in which he lives was bought by him from his own savings without the help of loans (d).

THE FAMILY BUDGET

472 511 It appears that MONEY is a variable but important factor in the operation of the modern Maltese farm as an economic or uneconomic unit. Money within the household, as distinct from the farm, merits further consideration.

As already suggested, there is generally no clear distinction made by the farmer between the finances pertaining to his farm and those of his family and its maintainance. The most common practice is for there to be "one purse" (Cases VI and X). Into this go all profits from sale of produce or livestock and out of it come the costs of running farm and household. As seen, the farm unit itself is not run with a budget in most cases and there is rarely any attempt on the part of the farmer to cost-account the working of his farm as far as the labour of his family and himself is concerned [457] (Case X). Similarly it is still the exception rather than the rule to find a herdsman who keeps cost accounts of his milk production. In many cases he knows he is making a loss, though of the details he has no notion. In carrying on his farming under these conditions he seems

175 Here the agricultural labourer has been in a much stronger
458 position than the townsman for he has had the land to which
464 he could return when no other work was available. Thus the
469 degree of emphasis on the land within the past hundred years is seen to have varied inversely as the general level of prosperity in the Islands (Section 2).

178 The recent growth of part-time farming in Malta may be
241 related to an attempt by the countryman to benefit from the
464 higher wages and status attached to non-agricultural
458 pursuits and yet at the same time to maintain the foothold
554 on the land as if he were contemplating retreat thither in some future period of major economic recession and depression in the Islands. The difficulty here however is that Maltese farming as it is cannot support more than a minor part of the total population. As an economic retreat it therefore has severe limitations: but the
554 problem goes further. The present younger generation in the farming community, in its anxiety to free itself from the stigma and status of farming and village life, is cutting as many ties with the land as it can - and as quickly. Therefore the foothold in farming, even for the few who might rely on it in time of distress, is weakening. The estrangement threatens to become too complete to allow of reconciliation.

175 Something of the change in twentieth century Maltese
465 agriculture may be seen from that afore-mentioned index, the wage rate. Without attempting a full analysis which would necessitate a consideration of the changing wage structure within the total employed sector of the population, an indication of average wage-rates for sample years available illustrates the steady level in the nineteenth century followed by a gradual increase in the first decades of the present century, and, after the 1939-45 War, a rocketing in the generally accepted level of the agricultural wage. It may also be observed that the agricultural wage, while generally lower than the average labouring remuneration during the nineteenth century is, today, equal to or even more than the general labourer's wage - an indication of the prevailing supply and demand of agricultural labour.

Daily wage of male agricultural labourers:

1826-42	6½d - 8d	(B/556, p.215)
1843-54	8d - 10d	"
1855-56	1s - 1/6d	"
1857-65	1/3d - 2/6d	"
1866-85	10d - 3/6d	"
1907-08	1s - 2/4d	(B/165 - 1907-08)
1921	3s	(B/165 - 1921)
1936	3s - 3/6d	(B/165 - 1936)
1957-58	20s - 25s	(Personal Investigation)

The over-all averages show that the farmers, of whom 9% were 'poor' by the C.A.R.E. definition, in 1958, are, as a class, slightly poorer than the 8.2% average for the whole population.

This pattern of comparatively low living standards in rural-agricultural Malta and Gozo is the essence of the problem with which this Section has been concerned. While farming and inferior standards of life remain synonomous in the Islands the younger generation of the rural community will not be content to remain on the land.

SECTION 4 : The Farmer's Outlook and Attitudes.

The importance of the past in understanding the present in Maltese agriculture has been emphasized. The change from peasant to commercial farming has been considered from its technical (Section 2) and its economic aspects (Section 3). The social background to this change is, however, no less important, particularly in so far as it relates to the work, thought and attitudes of a farmer who in fact is often little removed from the traditional when one penetrates a veneer of commercial profit-farming. Both among the literate and illiterate sections of the farming community this question of attitudes and outlook is of fundamental importance in any efforts towards improvements in Maltese agriculture.

The social environment of the Maltese countryman may be seen as three concentric circles, the family, village, and Malta. To the Gozitan who has never crossed the sea to Malta and to the old farmer who knows little of Valletta the concept of 'Malta' is something large and indeterminate. Even for the majority of the rural population, for whom Valletta and the towns are becoming a familiar part of experience, the Islands are large enough for them to feel none of the claustrophobia of which visitors to Malta complain. The 'National' unit is big enough for the farmer to speak of "Il-Gvern" - the Government of which he has heard frequently though imprecisely on all sides and on which he blames many of his economic and social problems. In this important concept of 'Gvern' no very clear distinction is made between the local Maltese authorities and the Imperial side of the Dyarchy[37]. Neither is allegiance to political parties very significant for personality is more important than party. Historically, this attitude to a remote 'Gvern' probably descends from the tradition of rule in the Islands which has included foreign British government since 1800 and the paternal but rigid hold of the Knights of St. John during their previous two and a half centuries in the Islands.

6:Bosley K-5 (1957-1958) 1959 EZ6 Malta EZ6

654 to have made its presence felt among the farmers themselves.
232
242

When a greater number of qualified personnel are available the Advisory Service and its various ramifications may go a very long way to improving Maltese agriculture and raising the profit-margin and therefore the living standards of the farming population. But in its early stages it has had to concentrate on the present farmers of Malta and Gozo who are, as has been emphasized, not only often illiterate but frequently near retiring age as well. The younger generation of farmers' sons, on whom the future of agriculture in the Islands will depend, have had to be overlooked. But if they cannot be persuaded to stay in farming the improvements accepted after great effort by the generation of their fathers will mean very little.

241
829
[575]
[874]

In Malta and Gozo there is nothing to compare with the Young Farmers' Clubs of the United Kingdom; nothing in fact to serve as a nucleus around which an enlightened younger farming generation might develop. Neither is there anything in the Islands of the nature of an agricultural college where young farmers might be trained. It is possible that the primary schools in rural areas might provide a means of contact between the agricultural authorities and the children of the farmers but the difficulties which would arise are clear. Nevertheless such an approach as this might do something to alter the attitude to farming which is one of the biggest problems facing the industry in the Islands today. If farming and other rural children could be shown that farming is no less respectable than the variety of alternative occupations it might persuade them to stay in the industry long enough to build upon the improvements now being introduced.

654
234

As was clear in the case of the balanced rations for pigs mentioned above the farmer is not slow to take advantage of a financial subsidy. The major example of this is the recent growth of the dairying industry with the guaranteed price to producers for milk sold to the M.M.U. (Section 2). In short, official policy here has been to make milk production profitable for the producer but at the same time to maintain a low consumer price for the pasteurized product - at a level producing a loss the cost of which is borne by the Government. The totals of milk purchased from producers by the M.M.U. reflect the rapid increase in this aspect of farming in recent years. Milk surpluses (partly losses) also increased markedly as did the percentage of milk deriving from cows rather than goats[41].

[433]

439 suffers by being inadequately graded and packed does not concern him although the specialist working in Malta on marketing problems has stressed this as a primary weakness up to now (B/253). The farmer is further reluctant to [178] change to the production of certain 'early' varieties of potato which would sell much more profitably on the overseas market than does the Arran Banner which has been the predominant variety in the Islands for several decades.

178 The argument returns, in fact, to the thesis put forward in a number of contexts in this report that the farmer 241 is still thinking very much as a peasant subsistence producer although to outward appearances he has now become a fully commercial, cash-cropping farmer. This outlook, the product of illiteracy and confined experience, will have to be appreciated by those concerned with any kind of improvement and development in the Maltese agriculture. It is the younger, literate generation of the farming community who would be capable of education in these terms - if they stay in agriculture to be educated.

654 In the long run it would appear that the most satis- 426 factory kind of financial help to farming is the loan at very low interest rate (Section 2). The basis of this was the Agriculture and Fishing Industries (Financial Assistance) Act, No.11 of 1956, which authorized the loans for approved capital improvement projects at only 1% interest per annum. A major result of the loan system was that it made the farmer independent of money-lenders and money-lending middlemen. Previously many farmers had suffered near financial strangulation in the grip of these indivuals, particularly where they were operating under perpetual debt (v. Cases V and IX). A second great advantage of the loan is that the farmer is able to improve his farm and farming and at the same time preserve that independence of operation so dear to him. Many of the subsidies on seeds, rations, etc. have forced him to use his money in a certain way. He much prefers if possible to have the money and spend it as he chooses on machinery, livestock and fodder, buildings, cisterns, irrigation equipment, land reclamation, and repayment of previous debts, etc.

654 One disturbing feature of the loans is, however, that 426 they are putting a lot of money into the hands of the 454 farmer without necessarily ensuring that it is spent to the best advantage of agriculture or to the farmer himself in a long term view. For example much of the money loaned has been put towards the purchase of livestock and accommodation for animals in order to increase milk production, while the present regime of guaranteed milk price remains. To this extent the loans have helped the

654 829 467 178 (ii) The younger generation are not interested in improving farming; they scarcely stop to think that any changes in the industry might be possible in their present anxiety to find a new job in a different walk of life. Thus they will probably not be available to take over Maltese agriculture, improved or otherwise, from their fathers.

SECTION 5 : Conclusions.

369 In conclusion one may attempt to draw together the several general points raised in the previous four Sections. The most important of these may be listed as follows:

(1) The twentieth century is witnessing an accelerating process of the 'urbanization' of rural Malta and Gozo (Section 1). This comprises

(a) material change (the development of electricity, roads, sewage, transport, and a variety of other amenities),

(b) cultural change following general, elementary education - that is literacy, 'emancipation' and the emergence of a critical public awareness,

[565] (c) social and economic changes which have laid the foundations of a rural middle class, unknown in the traditional village scene.

[793] Along with this have come modifications in the pivotal role of the Parish Priest and other priests. Some of their traditional functions, notably teaching and caring for the sick, have been taken over by specialists in such fields.

369 829 The factors outlined under (a), (b), and (c) are tending to extend the horizon of the individual villager far beyond the limits of his own village. Whereas he used to work and think within his family and village he is now aware of Malta and beyond.

241 464 178 (2) The particular physical limitations on farming in the Islands have, in the past, made the industry dependent to a very considerable extent on the meticulous hand-labour of the industrious Maltese farmer. This has been necessary not only in cultivation itself but also in the maintenance, and even construction, of the fields and terraces themselves (Section 2). The present younger generation of the farming community is showing itself unwilling to accept the life and work which conditions such as these involved. They have benefited from general elementary education, literacy, and contact with the world outside the villages to the extent of demanding work which seems to them economically and socially rewarding. The past twenty-five years have seen a rapid decline in the number of full-time farmers and farm-workers. Today the farmer, in most cases no longer assisted by his sons, finds hired labour both scarce and costly (Section 2).

178 (3) On account of these same physical limitations
241 mechanization of field-work cannot be expected to solve all
407 labour problems in Maltese agriculture. An initial, over-
464 optimistic emphasis on large tractors and other heavy machinery has given way to a rapid increase in the number and popularity of the small rotary-cultivators. But even this cannot be expected to displace completely the wooden plow and hand implement working (Section 2).

However, mechanized farm implements, particularly the small, manoeuvrable rotary-cultivator type of hand tractor, have enabled a reduced number of farmers to work their fields more intensively, and, in some cases, to increase the area worked by a single individual.

The neglect of those aspects of farming where manual work is dominant and necessary have, nevertheless, accompanied this change with the bizarre result that intensification of effort and neglect are proceeding simultaneously (B/336).

178 (4) A basic factor in the present situation, in which
434 the young farmer is retreating from farming, has been the emergence of a demand for money income (Section 3). The traditional pattern of peasant, subsistence farming in which the main object was the support of the farmer and his family has been replaced by a money-conscious outlook in farming. The farmer now expects his farm to produce a profit with which he can

(a) purchase those items no longer produced on his farm or by his family (clothing, bread etc., etc.),

(b) purchase items which have recently become part of his regular demands and for which money is a sine qua non (property, farm machinery and equipment, clothing, preserved and other imported foods and drinks, recreation, transport, etc.),

433 Food, as an item of family expenditure, nowadays figures
511 especially prominently

(a) where the income derives mainly from milk sold to the M.M.U. and where the land is put, almost exclusively, to fodder,

(b) among part-time farmers (a very rapidly growing element of the farming community in recent years) who concentrate on fodder crops because of the comparatively little labour involved and the generally good market prospects.

178 But of greater significance in the long-term view is the
434 fact that these new demands for monetary gain are a particularly prominent feature among the present younger generation of the farming community. For them a substantially increased income is synonomous with social and economic betterment. Since they do not envisage such an increased income coming from farming they are all the more anxious to leave the

654 (b) to encourage the members of the farming community to remain in their villages and in the industry.

654 234 (9) Following the official policy, outlined under (8) particularly that relating to dairying in the Islands, and the limited and short-sighted outlook of the average Maltese farmer (v.6), an irrational emphasis on milk production has emerged in recent years (v. Section 4). The dairy industry has grown to unprecedented size in the Islands and many herdsmen have seized eagerly upon the guaranteed price for milk sold to the M.M.U. as a source of a steady income. The fact that the dairy industry as a whole is over-producing and the continuation of the present conditions depend on a virtual Government subsidy does not deter them from concentrating all efforts into milk production to the neglect of other aspects of farming.

654 178 (10) The official policy, outlined in (8) and (9), seems likely to fail or to come near to failure on two main accounts (Section 4):

(a) the difficulties facing current attempts to pursuade the farmer to accept new schemes, crops, equipment, methods, etc., and arising from

(i) the outlook and attitudes of the farmer as discussed in (6),

[208] (ii) the use of unsuitable means of propaganda by the Advisory Service and others at present attempting to pursuade the farmer to accept new ideas and methods which would bring him cheaper working, a better profit and, thereby, contentment.

(b) the fact that the policy, outlined in (8), is directed, naturally enough, at the present farmers. This generation, however, illiterate and conservative, and with an average age in the late fifties, is, in the long-term view, the wrong one.

The present younger generation in the farming community, whose literacy and awareness of the world beyond the village make them educable and more responsive to new ideas, are the individuals towards whom official effort should be directed if Maltese agriculture is not to be lost by default. Nothing, however, included in official policy (up to December, 1959, is aimed at them (there is nothing resembling a young farmers' club in the Islands and no institute or college where agriculture can be studied).

241 178 The younger generation is in fact, on account of the whole complex of technical, economic and social reason (the strenuous work, the insecurity and the low social status involved) discussed in the four previous Sections, anxious to escape from farming as fast as opportunity to do so emerges.

The problem is clear, and its solution one of action.

654
241 An F.A.O. report on investigations in Malta and Gozo observes that "Progress in agriculture is fundamentally a human problem; it depends on knowledge and the intelligent application of knowledge" (B/243, p.9). Within the Islands themselves there is a certain awareness of the situation and [181] particularly of the need for an official policy designed to develop the agricultural industry to the best advantage of the total economy of the Islands and to assist the farmers who "are perhaps the most hard-working, honest and God-fearing section of the community and the country will be the loser if it were to let them down" (B/387, p.7).

It must be noted that the position in Gozo is even more intractable than in Malta.

From work done in the field two major lines of approach to the problem of Maltese farming emerge:

(a) Development policy must be related to the present and future position of her only basic industry - agriculture - within Malta's total economy. In this context one feels that at present there is some over-emphasis on the parts rather than the whole, that is the individual farmer qua economic unit and on the means whereby he may derive increased profit from his present - generally uneconomic - farm-unit. It is too easy to discuss minutiae of policy which are "good for agriculture", rather than to consider either men in villages or the fundamental national needs.

(b) The long-term improvement of Maltese agriculture as regards both the national economy and the fortunes of the individual farmers depends on the personnel of farming as much as on policy imposed from above. Policies must be tailored to fit the varying capabilities for absorption among the farmers, from the potato-grower who cannot see why a certain variety of potatoes is not selling on the export market to the dairyman unable to comprehend the artificially distorted basis of the industry which provides his livelihood. Moreover, up to now few development plans have been aimed specifically at the future farmers of Malta, the young, literate generation of the farming community. Before they have all left farming and village society this generation must be made aware of the possibilities and potential of agriculture in Malta and Gozo.

468
829
234 FOOTNOTE: While this report was 'in print' it was announced that the milk producers had decided to withhold deliveries to the M.M.U. (B/59, 17th November, 1959, p.4). They argue that the guaranteed price given them should be increased to take into account current production costs - especially of fodder. The fact that they appear to have overlooked the £370,000 paid by the taxpayer in subsidising the milk industry (1958) illuminates both the narrow outlook of the farmer and his failure to appreciate the uneconomic basis of his dairying industry today (v.9).

*159 433

3	rotal barley bran	1s. 4d.
8	" cake	3s. 6d.
5	" sulla	1s. 4d.
8	" beans	5s. 0d.
1	basket prickly pear	1s. 0d.
½	" straw	6d
		12s. 8d.

- Sample daily feed for 46 goats yielding c.10 galls.

48	rotal bean	£1. 10s. 0d.
16	" barley	6s. 0d.
4	bundles sulla	5s. 0d.
	Furrajna (green barley)	5s. 0d.
		£2. 6s. 0d.

[434] - Daily feed costs thus average £2.18.8 and the income from milk £3.16.6. Profit, making no allowance for labour costs is 17/10d. daily, varying slightly with milk prices.

*159 234 G. Husbandry.

(i) - Does not subscribe to the common view that "the more the feed the more the milk".
- Attempting to increase profit margin by cutting fodder costs, which he does in three ways:-
(a) By extending the area held under fodder crops. The cost of fodder makes this worthwhile even though it involves larger purchases of food for the family.
(b) By acquiring grazing land, a useful supplement to fodder crops.
(c) By improving feeding patterns to give a more balanced diet.

*159 ● 241 (ii) - Land lies idle in the summer months since none is irrigated.
- Two rotations are in use,
(a) 1st yr: Wheat after manuring and thorough hoeing.
2nd yr: Sulla
3rd yr: Wheat
4th yr: Fallow
(b) 1st yr: Wheat
2nd yr: Sulla and Beans
3rd yr: Potatoes, Tomatoes, Melons after tractor plowing.
4th yr: Fallow

*159 43 829 H. General.

- Completely dependent on the sale of milk to the M.M.U. at current prices of 5/6 to 6/- per gallon.
- Commercially much more sophisticated than the majority of Gozitan milk producers, this farmer runs a profitable concern.
- Has shown himself willing to cut losses by relinquishing land which he cannot work profitably.
[454] - At the same time makes considerable effort to add suitable land to his holding.
- Atypical in avoiding dispersion of effort over a variety of minor activity and in high degree of specialisation. This specialisation, however, renders him particularly vulnerable to any change in policy on the maintenance of milk prices.

*159 234 CASE II: Ġużepp (A goats' milk producer with subsidiary cash cropping.)

Like Pawlu (Case I) Ġużepp is a herdsman. He has however fewer goats (25) and no cows as "there is no place to keep them". Accommodation is in fact one of the major problems facing him and thwarts his efforts to increase his herd and thereby his earning power. Late in 1957 some of his

*159 234 premises were deemed by the sanitary authorities to be unfit for animals. He has no goat pens near his house but is prevented by the lack of capital from making substantial improvements in his facilities. Owing to shortage of space, he prefers to buy in fully-grown animals rather than to breed his own, which would be cheaper. Fodder storage [246] (he produces just enough sulla to feed his own goats) is a further problem and he tries to 'make do' with odd corners of often unsuitable space.

*159 ● 241 433 Crop production is geared to the provision of fodder for the goats, together with the supply of vegetables for the family, and grapes (for wine), some tomatoes and other items for casual sale to local shops.

*159 434 The income side of his budget depends on the proceeds from the milk sold to the M.M.U. In August, 1957, he was getting about 16/9d a day for the milk sold. His grapes for 1957 brought him a further £66. His largest expense is fodder (apart from sulla) and its price is a constant cause of grumbling and bitterness by Guzepp. Rents for [427] 1957 totalled £35, that is about £1 per tomna for good land (generally red soiled 'hamrija') and 15/- for poorer, whiter ('abjad') soils. His cropping illustrates a common [241] practice in Maltese farming in that he tends to plant more [433] of a crop which has just had a 'good' season and thereby frequently suffers from glut conditions. Thus in 1958 he aimed to plant a large area to marrow (gargha baghli) because "last year's crop was good". In the previous year he had been unable to get all the potato seed he would have liked but, at the end of the season, was able to buy in potatoes very cheaply for the table because of the general glut in the crop which he had, as it transpired, fortunately avoided.

*159 438 443 Guzepp, like most farmers, is very critical of the great gulf between the price given by the pitkal and that paid by the consumer. In a small way he strives to avoid this by selling some of his produce directly in the local village, but this brings him only some £12 per annum.

*159 511 829 178 Expenses are few apart from food, clothing and a few extra items such as Church contributions. His bill for entertainment is practically nil and his children are not yet old enough to demand large sums of pocket money - which one foresees they will do. Guzepp is very anxious to enlarge his farm and his herd and to improve his accommodation. In this development one feels he is looking to the future support of his now school-age sons. Certainly the older of these seem at present to look forward to following in their father's footsteps. But it is clear also that Guzepp's own deep attachment to the land and to farming is

*159 185 ● 241 178 the source of the enthusiasm among his children and when a few more years have made them money-conscious it is difficult to visualize their reconciling the limitations and lack of profit in farming with their aspirations towards the bright lights of Valletta and other diversions. For the present nevertheless Ġużepp wants to expand his land holding and herd, although he has no sort of a bank balance and thinks in terms of the present low-interest loans being made available by the Government for farm development and of "working harder, rising earlier and economising on fruit and desserts for the children".

*159 362 [427] His house is old and remote from the village. He pays the landlord, "who does not do the repairs he ought", £8.10s per annum and thinks £5 would be much fairer. Given a perpetual lease on a plot he would build himself a new house and include near it accommodation for his animals. For his large family of wife and eight children the house, though very well kept, is hopelessly inadequate. Certainly [159] the placid and generous natures of both Ġużepp and his wife enable the family to carry on under limitations of both home and farm which would have persuaded many another farmer to emigrate long ago.

*159 54 461 Moreover there is nothing in the hamlet which might be called social relaxation. The nearest Band Clubs, cinemas and cafés are in the village more than a mile away - a long distance by Maltese standards. However, as Ġużepp's wife observes "these things are not missed by the people" who have had little experience of them. She notes that in Malta, unlike England, the countryman can easily get to the bright lights, if he wishes, by bus. "But work, family and Church take up a lot of time".

*159 464 654 [426] Labour problems do not trouble Ġużepp. He can himself operate his small holding and care for his two dozen animals with the help of his wife, who joins him in the fields when work is pressing, and his young sons, whose contribution, he admits, is very considerable out of school hours and in the vacations. He is keen to mechanize (i.e. to acquire a hand cultivator on a Government low-interest loan) because he sees this as the way to increase the area worked with his present labour force. A larger area would mean more fodder produced which would bring more profit on the milk sold, while the number of animals could itself be increased along with the provision of extra accommodation (also on Government loan). The basic assumption here is that the Government's guaranteed price to the herdsmen for

*159 443 milk produced will continue. If it does not he would, it appears, be forced to rely more on field produce for sale through the pitkal marketing system. He knows that profits here would be less and disturbingly prone to competitive

#159 443 fluctuation. In such a situation he would find fixed annual repayments on loans for development much more difficult to meet.

SUMMARY OF CASE II

#159 (A goats milk producer with subsidiary cash-cropping).

A. Land.

[423] [427] Rents 10 separate plots, all dry land, in the Qawra Region.
Several landlords; total rent including house (£8.10.0) £35 p.a.

B. Utilisation.

[241] [311]
- Attention devoted mainly to fodders: wheat, barley, sulla.
- Grapes, some tomatoes and a few potatoes for sale.
- Various vegetables for home consumption.
- Grazing on waste and abandoned land.

C. Livestock.

[231]
- About 25 goats: 2 rams and 23 milkers all over 2 yrs. old.
- 20 hens, 5 pigs, 1 mule.

D. Capital.

[423] [454] [412] [407]
(i) No freehold land.
(ii) Little or no liquid reserve.
(iii) Equipment: usual hand implements; no mechanical equipment until 1957 when he bought a rotary cultivator at £350 with a government loan to be repaid at £62 p.a.

[426] [427]
- Hires tractor and plow at 15 to 25/- per tomna.
- Borrows spray from brother.

E. Labour. (v. Table 4: Analysis of Work Record, 1957-58)

[464]
- No permanent hired labour.
- Help from wife and children (8 children, all below 14 yrs. of age, 4 at school).
- Employs a vine-grafter at 25/- a day when necessary (150 vines can be grafted in one day).
- Pays friends and relatives £1 daily for help at grape harvest.

F. Production and Sales.

[234] [43] [231]
(i) 22 goats (Nov. 1957) yield 3 gallons of milk daily which sells at 16/9 (5/7 per gall.).
- Keeps only milkers as no accommodation for rearing.
- Female kids sold for breeding fetch 7/- each, male kids sold to butchers when 15 days old fetch same price.
- Buys 3 to 5 goats annually to maintain herd - price in 1957 £10 each.
- 5 pigs includes 3 for meat, 2 for breeding; piglets weaned after 40 days and sold a week later.

[245] [434] [244]
(ii) Vine shoots bought from Govt. Farm at 28/- per 100. Grapes sold to vintners. Price takes no account of quality.
- In 1957 sold 30 qantar at 44/- per qantar = £66.
- Tomatoes, small quantities sold, but bulk of crop made into paste for home use.

G. Husbandry.

[245] (i)
- Much effort expended on vines. Pruned in January, when 2 yr. old shoots cut back.
- Grafting in February; new grafts produce small crop the same year.
- Sprayed, plowed (3 or 4 times) in May.

*159
[245]
- Many stocks now 20 years old require replacement.
- No early potatoes grown "because of sea-spray".
- Sulla sufficient for his own stock.

[233] [461] (ii)
- Half of every working day is devoted to grazing the goats on waste and abandoned land.
- Fodder from his own sulla and barley but has to buy cake and beans, prices varying between £2 and £3 per qantar - expensive.

● [241] (iii)
- Manure from his own stock provides all his requirements and leaves surplus for sale.
- Uses 6 bags of sulphate of ammonia p.a., the only chemical fertiliser.

[231]
- Pig feed costs 11/- per sack which lasts his 5 pigs 4 days.

*159 H. General.
829
241
- Has a hopeful attitude towards farming but still expects a great deal of Government help in the form of grants, loans and subsidies.
- Claims that his children intend to succeed him on the land but they are young enough to change their minds.
- Willing to accept advice, but not impressed by experts who tell him either "things he knows already" or give him advice "which is sound but not applicable to Maltese conditions".
- Has only a very general idea of costs and returns. Takes no account of value of family labour.

*159
[434]
[234]
- Basic income is from sale of milk (£300 in 1957) and grapes (£66) plus small quantities of vegetables (c.£12). Spends £100 p.a. on food for family in addition to his own produce.

[511]
[454]
[241]
- Typical of farmer who is satisfied with his lot, keeps his family decently fed and clothed but spends little or nothing on non-essentials. He is anxious to improve his herd, accommodation and methods but his farm provides no financial surplus with which to do this.

[511]
- Continues to accept a standard of living far below that of his more sophisticated compatriots.

*159
461
241
512
234

TABLE 4. CASE II. Analysis of Work Record. 1957-58[a]

ACTIVITY	Aug		Sept		Oct		Nov		Dec		Jan		Feb		Mar		Apr		May		June		July		Year	
	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Sundays and feasts[b]	6		6		4		5		6		6		5		6		5	1	6		6		4		64	1
"Business", miscellaneous	1				1		2				1		2		1				1				1		10	-
Grazing Goats.[c]		29		28		30		29		30		30		25		20		28		30		29		28	-	336
Collecting money from N.R.U.	1		1		2		2				2		1		1		1		2		2		2		17	-
Goats' sheds - cleaning			1		3		2	1	4		2	1	2		1										15	2
" " - building, repairing	3						9		1																13	-
Pigs, illness and slaughtering			1		1								1										1	1	4	1
Potatoes (Sowing			1								5														6	-
Potatoes (Weeding, hoeing															2		3								5	-
Potatoes (Lifting									6												2				8	-
Vines Pruning											12		3												15	-
Vines Grafting											1		4		2										7	-
Vines Hoeing, plowing, spraying					1	1							1	1	6	1	3		9	1	1				21	4
Vines Picking			6		2																				8	-
Tomatoes Planting out, hoeing															1				2				1		4	-
Tomatoes Picking	1		8		4		1																2		16	-
Wheat Sowing							1		10																11	-
Wheat Reaping																					11				11	-
Barley Sowing							3																		3	-
Barley Reaping																			5						5	-
Sulla Sowing	2																						1		3	-
Sulla Reaping	1												1		6		6						2		16	-
Sulla Binding(d)																	5						5		10	-
Narrows, Melons, Pumpkins,													1				1		5		2		2		11	-
Onions and garlic					1				1																2	-
Beans, carob and Prickly Pear(e)	5		1		1						2				1		3								13	-
Gathering greenery (haxix)													1	1	1	2									2	3
Plowing (unspecified): Motor -		2	1		5		2		1				4			1	2								15	3
" " : Wood Plow. and hoeing			1		2										3	7			1						7	7
Threshing wheat & barley - (f)																					5		3		8	-

continued

*159
46
512
241
234

Table 4 continued.

ACTIVITY	Aug		Sept		Oct		Nov		Dec		Jan		Feb		Mar		Apr		May		June		July		Year	
	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Manure spreading (g)	5		2						1												5		3		17	-
Repairing field storm damage					4		3						1												8	-
Other and unspecified (h)	6		2	2					1	1			1	1			1	1			1	1	2	2	14	8
TOTAL	31	31	30	30	31	31	30	30	31	31	31	31	28	28	31	31	30	30	31	31	30	30	31	31	385	385

(a) From work record kept by farmer's wife. (Translated by the writer): originals in B/5).
(b) No work in the mornings - goats grazed as usual in afternoon.
(c) Occasionally the children relieve Gulepp of supervising the goats' grazing.
(d) Including transport and storage.
(e) Hoeing and cutting.
(f) Including preparations for threshing.
(g) Including moving, spreading, turning and selling.
(h) Including 6 mornings when Gulepp washed clothes (wife's confinement), and others when weather was too bad for work.

*159 443 484 521 Shopping is done in the local village but Marsa makes the journey to Valletta for the 'Puq il-Monti' Sunday market occasionally, though with the intention of gossipping rather than making purchases.

CASE III : Summary

(A goats' milk producer.)

*159 423 A. Land.

30 tmien in Naxxar-Gharghur Hills area.
14 Field plots in two main groups;
All on soils of tad-Dawl and l-Iklin Complexes.
Of this - 5½ tmien freehold,
- 24½ tmien leased from 6 landlords.
Rents range between 10/- and £1 per tomna.

*159 ●241 311 B. Utilisation.

Almost entirely fodder production e.g. February 195
3 plots under widna.
1 plot under barley - pulled green.
3 half plots under wheat.
2 half plots under sulla.
1 plot used for goat grazing - fallow.
1 plot under Żofżaf. (bitter vetch).
1 enclosure under prickly pear.
3 plots under vetches.
[434] Remainder subdivided and carrying potatoes, broad beans and a few vegetables.
Only regular cash crop - winter potatoes.

*159 231 C. Livestock.

During 1957/1958 goat numbers ranged from 35 to 50 and milkers from 27 to 40.
5 sheep kept for wool and sheeps milk for cheese-making.
1 mule - imported from Tunis.

*159 [423] [454] [412] [407] D. Capital.

- Land held in freehold valued at £400 in early 50's
- Freehold village house.
- According to his own statement liquid reserves of £200.
- Equipment - hand tools, local wooden plows, etc. No machinery but plans to buy rotary cultivator.

*159 464 [427] E. Labour.

- Wife spends c.30% of her time on the land, although childrens ages range from 3-8.
- Communal help for threshing.
- Hires labour for barley and sulla cutting. During 1957 c.18 man days at cost of c.£15.
- Every 4th year deep plowing (by contract) of about half the fields. Cost £1 to 15/- a tomna.
- Each year has some land tilled by rotary cultivator. Cost 12/- a tomna.

*159 433 F. Production and Sales.

- Goats milk sales range from February minimum of c.45 lbs. per day to May-August maximum of c.70 lbs. per day.
- Winter potatoes as cash crop vary considerably in yield and in selling price.
- Occasional sales of small quantities wheat and wool
- Produce consumed by family valued at c.£1 per week.

*159 241 G. Husbandry.

(i) Land - All dung used on fields - usually before potato setting.
- 7-8 bags of sulphate of ammonia applied annual
- The concentration on leguminous fodders prev[ents] the employment of the normal four-year rota[tion]

*159 ●24 (ii) Seed - Keeps grain and seed-potatoes back from harvest - usually least saleable.
- Buys sulla seed.

*159 231 (iii) Livestock - Breeds goats from own herd and has no wish to try breeding experiments.
Replacement rate c.5 per annum.
- Feeding - no feeding programme and relies mainly on bulk green and dried fodder including rough grazing on wasteland and 6-7 bundles a day of 'haxix' - weedy roadside and wasteland vegetation.

H. General.

*159 157 A conservative Maltese goats milk producer. More suspicious than most and not prepared to give much financial information. He has no idea of costs or profit and is only interested in sustained high milk prices.

CASE IV : Wistin (A large-scale goats' milk producer with some land)

*159 234 474 Like Case III, Wistin is a goat herder with fields supplying fodder for the animals together with some food items for the family. His herd is however much larger and in mid-1957, included ninety animals. He began goat herding with a few goats many years ago but the biggest increases have been in the past few years of guaranteed milk sales to the M.M.U. Now he aims primarily at profit from milk and is very much less concerned with rearing kids. He is a member of the Malta Milk Company (Il-Kumpanija Maltija tal-Halib) which, he believes, stands for the 'rights' of the milk-producing herdsman. The Company demands improvements in the system including a higher price to the producer in the flush production period. It can scarcely be said to argue from strength, in view of the present market situation heavily distorted in favour of the milk-producer by Government policy.

*159 234 461 656 The village became a "Closed Area" in 1955. This meant that Wistin could no longer sell unpasteurized milk from door to door - previously there had been some seven or eight milk-sellers like him in the village. Since 1955 he has been concentrating on his goats and on fodder production. He says he "likes goats". Certainly milking, cleaning and grazing the animals takes the greater part of every day (as in Case II, Wistin takes out his goats to graze and exercise practically every afternoon of the year). He is proud of his herd and "would feel ashamed to appear at the M.M.U. collection depot without a reasonable amount of milk for sale". In the flush summer season this is 20 gallons or more but drops considerably in the winter. Wistin strives to keep the milk production as steady as possibly however throughout the year because a steady supply of milk to the M.M.U. means a steady income for his family. He himself works on his fields only "when some spare time is

433 434 *159 46 24 465

available", and normally delegates most of the work to a labourer who receives 24/- for an occasional day's work.

His own fields produce only a small part of the fodder required by the herd however and Wistin buys in sulla and other fodder "as it is needed". He does not buy regularly nor does he keep any record of his purchases or sales. In December, 1957, he was spending about 15/- per day on fodder other than sulla, on which he had spent £120 during the previous year, 1956. But of costs of production of milk he has little idea. His own labour does not figure as a 'cost'.

Wistin's family of eleven spends about £1 on food per day and eats potatoes and other vegetables and milk from the home farm to the value of a further 7/6d daily. The new demands on money are observed by both Wistin and his wife. She says that in her youth she "would never have dreamt of spending on clothes the money which her daughters are now spending". "In the old days, a girl went to the sea with her parents or on an occasional visit to Sant Anton - now they go to the cinema or to Valletta to buy shoes for the festa". One of the daughters is shortly to be married to a policeman and Wistin observes that the costs of the wedding and the dowry will be very considerable.

Wistin is a true herdsman. He has no interests which would upset his heavy routine of work. He is "not interested in festas" and his only relaxation is an occasional visit to the races at Marsa when his children are on holiday from school and able to take the goats out to graze.

His father was a labourer with the Services and had only a few fields, but Wistin began working for other herdsmen and then gradually built up his own herd to its present size, particularly in the past few years when, in common with many other Maltese and Gozitan herdsmen, he has ridden on the crest of the guaranteed-price wave. None of his children, however, shows any interest in goats and it is clear that both Wistin's wife and his brother-in-law (who has a half-share in the house occupied by Wistin and his family) are actively discouraging the children from planning to follow their father. Their main objection to herding appears to be the long hours and hard work entailed. Wistin is more than a little sad that the herd and farm which he has built up is likely to be broken up for lack of interest among his sons, for, as he says, "Once you leave the fields you never go back...."

CASE IV : Summary.

(A large-scale goats milk producer with some land.)

A. Land.

6 tnien in the Naxxar-Gharghur Hills region.

159 423 - 10 field plots in single block of 4 tmien (Rent £2.10.0.), and
- 7 field plots in single block of 2 tmien (Rent £3).
- Grazing ground on Defence Dept., wasteland.

B. Utilisation.

159 241 311 (i) At any one time about half the land - that of the deep-soil terraces - will be under potatoes with a few vegetables, and the remainder under barley and leguminous fodder.

(ii) The arable land tends to be neglected as a result of pre-occupation with livestock. The land is therefore deteriorating and as soil wash reduces soil-depth and water availability, peas and vetches are replacing less hardy crops. The most accessible fields in this hilly region are worked mainly to meet domestic needs.

159 231 234 C. Livestock.

90 goats including 75 breeders and 2 billies.
7 sheep for meat and cheesemaking.
This herd built up in farmers lifetime (c.50 years).

D. Capital.

159 423 (i) No freehold land.

(ii) A freehold village house joint possession of farmer and brother-in-law.

511 426 (iii) Receives C.A.R.E.[27] food gifts but the family standard of living is by no means poor. No debts except on intra-family loan basis.

E. Labour.

159 464 (i) Of the family of 11, two children are employed elsewhere and the remainder give occasional help with the stock and on the fields.

(ii) The fields are inaccessible to powered tools.
Hired labour for fieldwork - c.15-20 man days @ 24/- a day including mule and implements.

F. Production and Sales.

159 43 234 (i) Goats milk sales range from February minimum of c.100 lbs. per day to July maximum of 290 lbs. per day.
Annual sales of the order of 6,400 galls. @ average price 5/9d per gallon.
Gross income from milk sales c.£1800.
No accurate record of expenditure on purchased feed but total can be estimated as of the order of £500 p.a.
Net income probably not more than £800 p.a.

(ii) Manure sold to arable farmers during first half of year with net profit of £18.

(iii) Home produced and consumed food and milk valued at c.10/- a day.

G. Husbandry.

159 23 (i) Livestock feeding of traditional pattern sulla, beans and cake is more carefully regulated in relation to yields than in Case III. Considerable emphasis placed on grazing and on stock exercising.

(ii) Herd suffers fairly severely from abortion and the kids from various diseases - 5 out of 16 in 1956, 4 out of 12 in 1957.
No prophylactic or remedial measures except more careful feeding. Sells sick and old stock for slaughtering.

(iii) Tries to extend period of maximum production by prolonging mating period but prefers to rely on "natural" periodicity rather than on producing off-season high yields. Has high standards for yields and has a good record in local shows for billies and breeders.

158 234 H. General.

An example of a high-class village goats-milk producer.

159 241 **B. Utilisation.**

Most of the 1 tomna of cultivated land is permanently used for potatoes intended for domestic use. There are also a few patches of garlic, beans, onions and other vegetables. A few vines and prickly pear plants give some saleable produce e.g. prickly pear fruit sold from door to door fetched £10 in 1956.

159 231 234 **C. Livestock.**

November 1956:
45 goats, 7 kids, 2 billies, 1 horse, 24 hens and rabbits.
November 1956 to July 1957:
15 goats died.
July 1957:
50 goats.
September 1957:
48 goats, 11 kids, 1 billy.
November 1957:
25 milking goats, 10 kids.

159 102 **D. Capital.**

(i) No freehold property and little equipment except for cart.

(ii) In perpetual debt - probably between £60 and £100 behind in outgoings at any one time (v. Table 5).

(iii) Receives C.A.R.E.[27] food gifts.

159 464 **E. Labour.**

No family labour. Of 10 surviving children, only two are above school-leaving age and they have non-agricultural employment.
- Hires no labour or machinery.

159 434 234 [435] **F. Production and Sales.**

(v.Table 5)

(i) Goats milk sales range from December minimum of c.20 lbs. per day to May-August maximum of c.70 lbs. per day (1957).
Typical annual pattern of usage in recent years:
2500 gallons sold to M.M.U. (@ average price 5/9 per gall.)
200 gallons sold privately (@ average price c.5/6 per gall.)
200 gallons used domestically.
Gross income from milk sales are of the order of £750 p.a.
Known expenditure on feed of the order of £400 p. .
Net income probably less than £200 p.a.

[432] (ii) Sales of old milch goats and kids fluctuate with condition of herd and with disease. In 1957 10 diseased goats fetched 70/- each and 5 kids c.10/- each. Replacements cost between £8 and £20 for Maltese-Saanen goats in milk.

159 232 234 **G. Husbandry.**

(i) Livestock Feeding. Typical pattern:
50 goats receive 4 bundles sulla, 25 lbs. beans and 50 lbs. cake in summer. During winter more greens and less beans. Very little grazing.

(ii) Herd suffers badly from pregnancy and after-birth diseases and also from abortion. No prophylactic or remedial measures known to the farmer who, like most of his type, merely tries to sell sick stock for slaughtering and replaces with new.

(iii) No real control of lactations and most of milking goats are mated between September and February. Is reluctant to try summer serving since suffering losses in 1956. Regards yield of 2 lbs. per day as minimal.

159 423 551 The family has occupied the present house for several generations and has acquired the street name as a family nick-name (these nick-names remain the standard, even semi-official, mode of reference though not of address, when the Christian name is used, v.B/376). Gnetu is a [554] [621] prominent member of the community in his part of the village which now includes some non-agricultural workers.

159 829 461 234 His outlook is rather more 'urban' than that of more isolated farmers, such as Case II. His adult son is an active supporter of the local football club and a regular cinema-goer. Gnetu himself is not concerned with such relaxation. He is devoted to his animals and especially to the goats which he will keep "because we have always had them". He takes an interest in farming and, despite 159 829 544 234 178 his illiteracy, is fully prepared to listen to advice. He enters animals in shows at Ghammieri and attended public lectures organized for farmers in 1957 (Section 4). He thought the lectures and a film on dairying technique interesting but gave the usual verdict that Maltese farming suffers from special difficulties of its own which cannot be solved by what he believes are "foreign methods". He observes that "it would be an excellent idea to go to the trouble of washing ones animals regularly but the time and labour thus expended would bring no additional return to the farmer". He believes that the methods which he employs throughout the working of his farm are tried and therefore to be trusted although in more than a few cases some basic cost accounting (as suggested at the lectures) would reveal the patent weaknesses in his argument.

CASE VI : Summary.

159 423 (A goats' and cows' milk producer with a considerable land holding.)

A. Land.

23 tmien of land, mainly dry, comprising 11 plots in 7 parcels arranged in two main blocks, one in the Ghajn Qajjet (Rabat-Dingli Uplands) one in the Blue Clay Basin on slopes of Wied Qlejgha. The former on soils of the l-Iklin Complex, the latter on good, sheltered Carbonate Raw Soils.

[429] All rented from a number of landlords, including the Civil government. Rent estimated at c.£30 p.a.

159 241 **B. Utilisation.**

The emphasis is on fodder crops.

Crop plan, Feb. 1957.

Plot 1	Potatoes	Plot 7	Sulla
Plot 2	Sulla	Plot 8	Tomatoes, potatoes.
Plot 3	Barley	Plot 9	Tomatoes
Plot 4	Barley	Plot 10	Vines
Plot 5	Vetches	Plot 11	Sulla
Plot 6	Poor grass for bedding and grazing.	Plus wallside fruits and vines in several plots.	

159 829 178 246 For once a single man can be convinced of the success of a novel method or crop he will soon be copied by his fellows. Wenzu himself observes that when he had heard about the lucerne for the first time and had planted some with great success in his own fields neighbouring farmers were not slow to copy him (v. Section 4).

CASE VII : Summary.

159 (A goats' and cows' milk producer with a small land holding.)

423 427 **A. Land.**
- Has 3 timen, worked by another farmer who shares income (£21) with him.
- Holds on lease a further area which had been let out for building and brings him £32 p.a. - much more than could be obtained for its crops.
- Also rents grazing in summer months.

159 234 **B. Utilisation.**
- The 3 timen field is under sulla, barley and a few vegetables.

C. Livestock.

159 233 234
- Is changing over from goats to cattle.
- Goats: 1954: 60; 1957: 44; 1958: 38.
- Cattle: 4 Friesians. Aims to build up the herd by private import of Ayrshires of which he has a high opinion. 3 of the cattle are owned by his sons though he tends them.

159 454 **D. Capital.**
- No information, but appears to have some reserves.

E. Labour.

464
- Some assistance from a son who is in govt. employment.
- Hires no labour.
- Thus does great bulk of the work himself.

F. Production and Sales.

434 234
- Milk (Oct. 1957) 10 gallons goats' milk, 9 gallons cows' milk daily to M.M.U. Gives sons a share in income though they appear to make no payment to their father for fodder, stall accommodation etc.
- Calves and kids usually sold after weaning.

159 233 **G. Husbandry.**

(1) Grazing.
- Where possible, goats grazed out and this is said to save him 15/- a day and to reduce sulla consumption to 4 bundles daily.

429
- Rents 7 timen of govt. land from part-timers at £1 per month from Jan. to Aug.

311
- This land is good, cultivable land untended because of part-timers' inability to work it.

(2) Fodder.
- Cake, barley, potatoes, beans, sulla.
- Feeds all that the animals will take.
- Buys in bulk when prices low.
- In six months (Oct. 1957-Mar. 1958) used nearly ½ tons of cake and 15 tons of beans.

435 434
- Sulla is bought at 9/- to 16/- per hemel according to quality and uses some 200 hmiel per annum.
- Fodder costs leave very small profit margin from milk.

159 156 **H. General.**
- Attempting to profit from sales to M.M.U. with no knowledge of the economics involved.
- Extremely suspicious of agents, government etc.

the money being repaid." Niklaws observes that "Farming depends on nature" and he points to the storms of late 1957 as an example of the way in which the farmer may suffer irreparable and unexpected loss. On this occasion standing crops, soil and field walls were washed away and the whole planting and sowing cycle interrupted.

The brothers also complain of the present marketing regime which, they claim, militates unfairly against the producing farmer. "There is no guaranteed market for field crops sold and there are too many middlemen taking too large a cut." The brothers cling to the typical idea in Maltese farming that the 'Government ought to guarantee sales of field-produce in the same way that milk sales are guaranteed'. They have little appreciation of ruling market conditions outside Malta. Niklaws says that the labour of the brothers is not considered as a cost - "if it were there would be no money left". They appear to have been in the habit of employing labour for many years and today have a full-time cow-hand. Only one of the brothers is married. Four of the brothers have therefore only themselves to support on their share in the income from this well-organized and apparently remunerative partnership, situated in one of the best dry-farming regions of Malta.

CASE VIII : Summary.

(Working partnership of five brothers with diversified production.)

A. Land.

c.70 tmien of unirrigated land in Żebbuġ Region. 16 field plots in 11 parcels in a linear arrangement extending over 2½ miles in the Żebbuġ and Wied tal-Isqof areas. All land lies in one of the best dry-farming regions of Malta on good marled Xero-rendzina and Carbonate Raw Soils.

B. Utilisation. (i) Typical arrangement.

		Winter	Summer
Plot 1.	8⅜ tmien	Potatoes & Wheat	Tomatoes & Cauliflower
Plot 2.	1 tmien	Potatoes	Cattle exercise yard
Plot 3.	1½ tmien	Onions, Potatoes, Vines.	Legumes & Vines
Plot 4.	3 tmien	Potatoes & Vegetables.	Cauliflowers & Vegetables.
Plot 5.	2½ tmien	Sulla & Barley	Tomatoes
Plot 6.	1½ tmien	Cereals, Cauliflowers & Tomatoes	
Plot 7.	2 tmien	Wheat, Cauliflowers & Tomatoes	
Plot 8.	7⅜ tmien	Sulla	Cauliflowers & Tomatoes
		Cauliflowers, Wheat & Tomatoes	
Plot 9.	2 tmien	Vines	
Plot 10.	2⅜ tmien	Potatoes	Tomatoes & Cauliflower
Plot 11.	21 tmien	Vines (3½ tmien)	
		Barley	Sulla, Tomatoes
		Vetches	Fallow
Plot 12.	2½ tmien	Potatoes	Sulla
Plot 13.	1½ tmien	Wheat	Sulla, Vetches
Plot 14.	2⅜ tmien	Fallow, Melons, Tomatoes & Cauliflower	
Plot 15.	5½ tmien	Citrus Orchard	
		Tomatoes	
Plot 16.	1⅜ tmien	Cauliflower	Tomatoes

159 241 (ii) The intensive summer utilisation of the land for unirrigated summer vegetables is characteristic of this region. Tomatoes and brassicas are dominant. Vetches and beans are grown as catch-crops in small patches. This type of cropping sequence i.e. potatoes, vegetables, cereals, sulla, is typical of well-developed Maltese mixed-farming.

159 C. Livestock.

231 (i) c.33 head of cattle including 20-22 milch cows, 1 stud bull, 2 bull calves for fattening.

234 (ii) 2 goats, 1 mule, 1 pony, 12 hens.

(iii) The cattle-herd has been built up since 1940.

D. Capital.

159 [472] (i) The accepted leader of this partnership enterprise is typical of the more commercially minded and successful Maltese farmers in that he was prepared to discuss anything except financial details. The amount of capital of property and even the details of land-holding of this "kulak" class is known accurately by nobody.

[407] [343] [454] (ii) Equipment includes 1 van, 1 hand tractor, 2 water pumps and two large cattle byres. At local values, farm buildings and mechanised equipment represents over £8,000 investment.

[426] (iii) This partnership prefers to indulge in small-scale family borrowing and lending rather than to use official-and controlled- credit facilities.

[423] (iv) Two village houses and over 3 tmien of land are owned freehold.

E. Labour.

159 464 (i) Partnership labour force totals 6 full-time farm-workers (5 brothers and 1 adult son).

407 (ii) A youth employed full-time with cattle.

427 (iii) All plots are deep-plowed by crawler tractor every fourth year at cost of £1 per tomna.

(iv) On this relatively level land a varying fraction of cereal reaping is done by machine. Machine cutting costs £1 a tomna, hand harvesting £3 a tomna. Hand cutting is less wasteful of straw but these farmers have a rare appreciation of the importance of the time-element in their complex economic and land-use system.

F. Production and Sales.

159 433 (i) The only certain information obtainable is of sales of cows milk. During 1957 minimum daily sales averaged 283 lbs. during May, and the maximum of 350 lbs. during March was almost matched in August and the following January. This constancy of sales based on a firm intention to allow production to vary but slightly from an average of 30 gallons a day from 20 milch cows is rarely found in Malta and is typical only of a few technically advanced and commercially minded farmers.

159 43 (ii) The partnership although possessing a stud bull usually buys cows in milk (preferably Ayrshires), a 'good' yielder costing c.£210. Breeding and raising heifers if regarded as unprofitable.

(iii) The main sales of arable produce consist of summer cauliflowers and tomatoes. In an effort to avoid the usual glut of summer brassicas considerable importance is attached to extending the season of production into autumn and winter. Price variations are considerable e.g. In 1956 cauliflower prices dropped to 1/- a sack while in 1956 they had risen to 20/- a sack.

*159 198 829 [45] Their approach to farming is in fact a set of contradictions. With no capital reserves they are making every effort to expand their herd even though this means continued debt. They are full of "our rights as farmers" and yet "suspicious of the Government and what it says". As with milk, "the Government ought to be responsible for the marketing of field produce". On the other hand Antnin is "against co-operatives in farming" although he has never had any experience of any co-operative or farmers' union. They claim to be building up their farm and herd in order to be able to hand over a substantial business to their sons; but their constant complaint is that "Farming is finished in Malta" ("Il-bidja f'Malta spiċċat"), and the avowed intent of both sons is "to leave farming where we earn nothing". They talk of leaving to "get a job" as if farming itself is something less than a 'job'.

CASE IX : Summary.

*159 423 (A long-established partnership of two unrelated stock farmers now engaged in cows'milk production.)

A. Land.

[429] Approximately 100 tmien of dry land in south-east Malta, the bulk in one compact block but with several outlying plots. The exact limits are uncertain since some land owned or rented by others is worked by the partnership. 25 plots are held from several landlords, Defence Dept. being the most important, and there is access to a good deal of grazing land, generally held at low rents from Defence Depts.

*159 241 B. Utilisation.

	1957	1958
Plot 1	Sulla	Wheat
Plot 2	Potatoes, peas, beans, onions.	Potatoes, cauliflowers
Plot 3	Potatoes, sulla	Wheat
Plot 4	Used as a pig sty	
Plot 5	Wheat	Wheat
Plot 6	Sulla	Sulla
Plot 7	Sulla	Sulla
Plot 8	Some potatoes, cowshed, exercise yard, manure heap and pig sties.	
Plot 9	Fallow	Plowed
Plot 10	Sulla	Wheat
Plot 11	Sulla	Plowed
Plot 12	Beans, barley	Wheat
Plot 13	Wheat	Sulla
Plot 14	Wheat	Sulla
Plot 15	Wheat, sulla	Beans
Plot 16	Wheat	Beans
Plot 17	Potatoes	Wheat, beans
Plot 18	Beans, barley	Potatoes, wheat
Plot 19	Yard and buildings	
Plot 20	Wheat	Barley
Plots 21-25	Wasteland grazing	

*159 231 C. Livestock.

Shifting emphasis in recent years.
- Cattle 1956: 18; 1957: 36.
- Goats "some years ago": 36; 1957: 2.
- Pigs 8.

*159 231 The cattle are very mixed in breed including "Bastard-Inglizi", supposedly pure Friesians and crosses between the two.

*159 D. Capital.

(i) No freehold property.

(ii) In perpetual debt, no reserves and frequent borrowings, particularly from the Government.

[423] [454] [407] [312] (iii) Equipment - usual hand tools
- rotary cultivator bought with a Government loan of £550, repayable at £100 p.a. plus 1% interest.
- small motor van, bought in 1953, for transport of milk.
- no piped water until Feb. 1958.

*159 464 E. Labour.
- No permanent hired labour.
- One man and his daughter together at 30/- per diem and one youth at 25/- engaged at busy times.
- Family labour: two partners and their two eldest sons work full-time and there is additional help from wives and children.

*159 434 435 F. Production and Sales.
- Income almost entirely from sale of milk to M.M.U. Production varies greatly: June 1957: 50 galls. daily; Dec. 1957: 35; Feb. 1958: 80. Sold at 5/6 to 6/- per gall.
- Male calves sold to butcher at £10; females sometimes sold at £30-£40 to pay debts.
- No accounts kept of feeding costs. These include one truckload of prickly pear (30/-) daily from June to October, beans at 55/- per qantar and cake at 46/- (July 1957). A considerable amount of grazing is carried out e.g. on sulla bought green at £6 per tomna.
- Potato sales insignificant and in 1957, owing to glut, involved a loss.

[433] - Vegetables produced are all consumed by the families.

*159 23 G. Husbandry.

(i) - The importance attached to grazing of cattle is unusual. (Most Maltese cattle are stall-fed all the year.)
- The emphasis is on numbers of stock rather than on their quality. The turn-over from goats to cattle has been helped by the government exchange scheme and by Govt. loans.

[232] - Occasional outbreaks of disease unnoticed until too late.

[241] (ii) - Crops are often neglected owing to time involved in animal husbandry.

*159 234 829 H. General.

The partnership is attempting to profit from guaranteed milk prices without the knowledge or skill to do so. The herd seems to have been built up beyond the numbers which can be properly tended by the labour available.

There is little knowledge of modern methods and still less of costs and returns. The view is firmly held that "cows yield according to the amount they are fed" and the reply to the question "How much fodder is required to produce a gallon of milk was "Min jaf?" (Who knows?).

The partners are extremely conservative in their attitude to marketing, suspicious of outside interference and hostile towards the idea of co-operatives. Yet they expect [426] continued Government assistance.

Their general pessimistic attitude is summed up: "Il-biedja f'Malta spiccat" (Farming in Malta is finished).

Despite guaranteed milk prices on which the whole economy is based, the partnership is permanently in debt.

159 Their failure to profit contrasts with the success of the
824 Gozitan milk producer, Case I.
231 The partnership's main aim is to accumulate cattle with-
237 in the current artificial economy of milk production. There
[433] is no thought or care for what might happen if the subsidy were removed or even reduced.

CASE X : Ġamri (An arable farmer in partnership with a brother and engaged in diversified production.)

*159 Ġamri is an arable farmer, specialising in fruit. He
241 has a couple of goats and sheep, a mule, and is keen to
23 acquire more pigs for fattening. Most of his effort is how-
427 ever centred on the land holding which he and his brother work
492 in partnership. Some fifty-three tmien are rented by the two brothers together while Ġamri himself rents a further ten tmien. About two-thirds of the land (17 plots) is owned by private landlords, one sixth belongs to the Church, one tenth to the Government and the remainder - about an acre - is owned by Ġamri's father.

*159 The working partnership of the two brothers is of many
492 years' standing. The brother's eldest son now works full-
464 time alongside the two men. The brothers say they could not
241 cope with any more land than they are working at present. They share the common view that hired farm labour is both uneconomic (at 25s or more for an eight-hour day) and inefficient. The land worked by the partnership is dry (baghli) apart from two irrigable (saqwi) tmien. In 1957 it was utilized as follows:

[311]

Fruit and vines.....	21 tmien
Cereals and fodders.....	18 tmien
Fallow, unproductive, or sub-let.....	13 tmien
Potatoes.....	6 tmien
Other vegetables.....	5 tmien

*159 Apples are the biggest single cash crop and the overall
245 success of any year depends on them. They were introduced
242 to the district by Ġamri's father some years ago and now grow in large numbers in a sheltered valley along with lemons, oranges, mulberries, figs, cherry-plums and other fruits. The produce is good but is usually affected by some pest or disease. The most prevalent of these is a boring grub. Ġamri and his brother spend a large part of September and October simply gouging this pest from the trunks of affected trees - with penknife and piece of wire. They regard this time-consuming and unremunerative task fatalistically. But of late Ġamri has been wondering whether the same result might not be achieved in a fraction of the time by the application of some spray. He knows nothing of the details of this and is more than a little doubtful of possibilities.

*159 Since 1953 Ġamri and his brother have expanded their
245 area under vines, buying seedlings from the Government Farm
[435] at 1d each. They consider vines the most profitable of crops, especially grapes for wine since these can be picked

This increase in the

178 291 [511] range of demands along with the near disappearance of home-produced garments has therefore required a much enlarged financial outlay on this part of the family budget. The villager now often takes a special pride in the clothing of his children, both the infants and those attending school. [371] [702] The compulsory attendance at school throughout the Islands has made the countryman more clothes-conscious, while the War of 1939-45 and the conscription which it brought put some men into shoes (or boots) for the first time and demanded that they be dressed to a rather higher standard than had been their practice before.

Work and Labour

* 159 241 461 464 As seen, Ġanri's normal labour force consists of himself, his brother and nephew. His own children being all below school-leaving age contribute relatively little. This trio apportioned their time, during the agricultural year 1956-57 when a detailed study was made, as under:

(a) Work on crop land, including cultivation, manuring, sowing, irrigation, crop protection, harvesting and transport of produce

(i) on the joint holding	- fruit.....	1740	man/hours
	- vines.....	489	" "
	- cereals & fodder...	1437	" "
	- potatoes...	868	" "
	- other vegetables...	505	" "
(ii) on Ġanri's own holding	- vines....	444	" "
	- cereals & fodders..	222	" "
	- vegetables	65	
(b) Other work connected with holding.....		109	" "
(c) Repair of storm damage.....		160	" "
(d) Building of pig-sties.....		100	" "
(e) Miscellaneous.....		677	" "
		6816	man/hours

In short, a total of 6818 man/hours was applied to about 62 tmien of land (excluding contractors' plowing etc.) an average of 110 man/hours per tomna. The above data are based on a daily work record kept by the farmer during the agricultural year 1956-57. The material may also be analysed on the basis of his calendar of activity on the farm for the year (Summary, E), and may be compared with a parallel work-analysis for two other farmers who provided a similar diary of their movements. Whereas Ġanri is an arable- and fruit-farmer, working largely dry (baghli) fields and terraces, the other two examples chosen for comparative purposes include a man whose farm nucleus is a large and fertile irrigable (saqwi) block (Case XI) and one who is a herdsman with fields producing fodder for his goats together with some vegetables for sale and for family use (Case II).

OUD In the first two cases the seasonal distribution of

In the first two cases the seasonal distribution of activity reflects the major points of contrast between the 'dry' and 'irrigated' operator. The herdsman stands in contrast to both of these with the care of his animals occupying a large part of every day of the year - even including Sundays and feste days when the field-working farmer expects to be off duty.

Ġanri and farming

Ġanri is a highly intelligent man in his forties who by his own efforts has progressed well beyond the limits of his very elementary formal education. He reads the Maltese-language daily 'Il-Berqa' (B/55) and keeps abreast of the school work of his children whom he encourages to learn English thoroughly as "the land cannot be divided among them all". English language is synonomous with education in his thinking, and education, in turn, he sees as the means of escape from the lowly position of the farmer in Maltese society. "We are but an Arab breed", he observes somewhat ashamedly. He himself has "little faith in the Government - which should help us". Much of this attitude had its roots in the War years of 1939-45 when the siege and food shortages produced something of a Golden Age for the food-producer. The farmer has not forgotten the £10 offered by the Government for 1 cwt of potatoes. Since the return to peace-time conditions the economic position of the farmer has certainly deteriorated rapidly with the depletion in his reserves, built up during hostilities, and the rise in labour costs and in the cost of living. During the War "the farmer was not so hungry as the townsman who had to rely on the black market"; now his position is one of a constant battle with rising costs. Ġanri, as an arable farmer, lacks the steady and guaranteed income of the milk-producing herdsman. His recent moves towards pig-meat production represent an attempt to get into an apparently more profitable line.

His nephew and many other farmers, though not Ġanri himself, make the mistake of failing to distinguish between the Church and the Government in their attitude to "the authorities". Thus the nephew regards the Catholic Action movement (of which he is an active member) as somehow "helping to run the country". But even Ġanri himself thinks that the Social Action Movement (another part of the Church's Lay Apostolate) must have some part in the secular administration of the country for he believes that an application for relief for storm damage made, through the Parish Priest, to that Movement amounts to an approach to the 'Gvern' (Government) of which he is so full of criticism. The case illustrates a point made elsewhere that the Maltese farmer is still primarily village-conscious. Clearly this is not to deny, however, that his horizon today is much wider than was the case when his father regarded

159 Valletta as a mysterious other-world to be entered cautiously
829 and very occasionally by the humble and bare-foot farmer.
181 Ġamri is typical of the section of the farming community
198 in Malta and Gozo which has absorbed an education beyond anything in previous generations but whose age prevents them taking the lead into any kind of Maltese farming reconciled with current social, economic and technical changes. He is "too old now to move from farming", but he is encouraging his children to acquire the education which will help them to escape from the land altogether.

CASE X : Summary.

159 (An arable farmer (Ġ) in partnership with his brother and
423 engaged in diversified production.)
(Details refer to Ġ alone unless otherwise indicated.)

427 **A. Land.**

- Ġ has an interest in 17 plots totalling 62.5 tmien; of this, 53 tmien is rented by the partnership.
- One large plot of 21.5 tmien, the remainder ranging from 1.0 to 8.0 tmien.
- All within an area of c.1 sq. mile in the Binġemma Basin and in Ġnejna, on a variety of soils, mainly Terra Rossa and Carbonate Raw Soils.
- 41.0 tmien owned by private landlords, 9.6 by the Church, 6 tmien by the Government, and 3.2 by Ġ's father.
- Rent approx. £30 p.a. varying from 8/- to 14/- per tomna.

159 **B. Utilisation.**

241 - The full range of crops grown in a complete year (1957-8) is shown in Table 6 (WORK ANALYSIS).
- In summary:

Fruit and vines	20.9	tmien
Cereals and fodders	17.9	"
Potatoes	6.2	"
Other vegetables	4.9	"
Fallow or unproductive or let 'bin-nofs'.	12.6	"
	62.5	tmien

159 **C. Livestock.**

231 - Relatively unimportant in early 1957, but a herd of pigs is being built up and in 1958 numbered five sows and their litters.
- One mule.
- 2 goats, 2 sheep; milk is purchased as these do not supply family's needs.
- 2 dozen hens, rabbits.

159 **D. Capital.**

423 (i) - No freehold land apart from one small patch of roadside waste.
454 (ii) - Recent investment in the construction of pig-sties.
(iii) - Cash reserve of £400 in April 1958 represents a reduction of 50% on reserve held a year previously; £200 spent on building up pig herd and accommodation for same; remainder covered deficit on year's farming and special expenses e.g. road surfacing, hospital expenses etc. Ġ expects to build up his cash reserve again in ensuing years.

159 (iv) - Equipment:
409 - Usual hand tools, cart, etc.
427 - Ġ owns no mechanical equipment but his brother's rotary cultivator is used on the joint holding, Ġ

159 407 427

paying his share of petrol and oil but making no payment for use of the machine. When used on Ò's personal holding, a charge of 16/- per tonna was made, compared with normal charge to outsiders of c.£1 per tonna.

- 4 yearly deep plowing by contractor at 25/- per tonna.

E. Labour.

*159 461

- Ò's 8 children all below school-leaving age contribute relatively little. His brother, however, has 3 sons working with him and his family provides more than half the labour on the joint holding.
- Flexible use of this labour force as:

(a) Joint holding worked by partners and Ò's nephew.
(b) Land held by Ò, deriving from wife's family, farmed by Ò and eldest nephew.
(c) Land held by Ò's brother, deriving from his wife's family, farmed by himself and his two younger sons.

*159 461

- A detailed work schedule was kept for the agricultural year 1957-8: see Table 6 - WORK ANALYSIS.

(a) Work on crop land, including cultivation, manuring, sowing, irrigation, crop protection, harvesting and transport of produce:-

(i) On joint holding:	Fruit	1740	man hours
	Vines	489	" "
	Cereals & Fodders	1437	" "
	Potatoes	868	" "
	Other vegetables	505	" "
(ii) On Ò's own holding	Vines	444	" "
	Cereals & Fodders	222	" "
	Vegetables	65	" "
(b) Other work connecting with holding		109	" "
(c) Repair of storm damage		160	" "
(d) Building of pig sties		100	" "
(e) Miscellaneous		677	" "
	Total	6816	" "

In short a total of 6816 man hours is applied to c.60 tmien of land (excluding contractors' plowing etc.) an average of 113 man hours per tonna.

*159 434 241

F. Production and Sales.

(1) - Details of yields of individual crops not available, but cash income from sale of crops 1956-7 was as follows:-

	From partnership land	From Ò's land	Total
Fruit	£340	-	£340
Grapes	£ 49	£ 8	£ 57
Sulla	£ 13	£15	£ 28
Potatoes	£ 12	-	£ 12
Melons	£ 11	-	£ 11
Tomatoes	£ 7 (est.)	£13	£ 20
Totals	£432	£36	£468
Ò's share	£216	£36	£252

- This represents a poor year; potatoes prices low, sulla yields below average, glut of fruit.
- Yields and income vary greatly from one field to another. Valuing the proportion of the crop retained at same level as that sold, e.g. sulla yielded from £8.10.0 to £15 per tonna, fruit £28 per tonna,

* 159 241 433 434

[P.121]

159 241 434 433

tomatoes £18.10.0 and grapes from £8 to £18.

- Measured yields include:-

Grapes:	4.2 tmien	11.4 qnatar
Winter sown potatoes (irrigated):	2.0 tmien	6.8 qnatar
Autumn sown potatoes (dry):	3.3 tmien	7.6 qnatar
Green beans in pod:	1.5 tmien	600 rtal
Wheat (threshed):	6.7 tmien	31.5 tmien
Sulla:	1.0 tomna	13 kmiel
	1.0 tomna	20 kmiel
	3.0 tmien	10 kmiel
Vetches:	0.7 tomna	6.5 kmiel
	2.0 tomna	7.0 kmiel

- Thus, comparing these figures with figures for labour applied, cash receipts per man-day were £2 for fruit, £1.10.0 for grapes and £1 for sulla. Were labour applied to be costed at prevailing rates of 20/- to 25/- per man-day, a large loss on the year's working would result.

*159 241 433 (2) A large proportion of the produce is retained for consumption by the family and by its small number of stock. In 1956/7 one quarter of joint holding and one third of O's own land produced entirely for home consumption.

*159 241 G. Husbandry.

(1)- Rotations not strictly adhered to, but common sequences are:
- (a) on good land
  - 1st Yr: Manuring followed by potatoes or by winter fallow and summer crop (tomatoes or melons).
  - 2nd Yr: Potatoes or tomatoes.
  - 3rd Yr: Sulla.
  - 4th Yr: Wheat.
- (b) on poorer dry land an alternation of sulla or vetches with cereals.
- (c) best irrigated land may carry 2 crops of potatoes in each of several successive years but more usually tomatoes or melons follow winter-sown potatoes and autumn-sown potatoes are then omitted.
- (d) fields may be irrigated in alternate years only, with dry land crops (cereals, beans, onions) in non-irrigated years.

(2)- Common cultivation methods:
- (a) Vines: land worked 3 times with tined hoes during late winter and early spring. Ammonium sulphate worked in during second cultivation.
- (b) Tomatoes: surface scattering of manure followed by deep plowing (summer). Worked four times with wooden plow in winter and subsequently reduced to fine tilth with hoe before planting seedlings.
- (c) Wheat: land worked twice with wooden plow in October, seed scattered broadcast and plowed in immediately.
- (d) Melons: land worked six times during autumn, winter and early spring, four times with wooden plow, twice with rotary cultivator. Seed sown and watered in early April.
- (e) Beans: land deep-plowed during summer and worked twice with wooden plow. Hoed during planting.

(3)- Seeds. Average rates of application:-
- (a) Sulla (new crop) c.10 tmien (weight) per tomna of land, seed obtained from previous year's crop.
- (b) Wheat and barley 4 sighan (weight) per tomna, generally from previous crop but may be purchased at c.3/- per sighan.
- (c) Beans. 1 tomna (weight) per tomna of land.
- (d) Potatoes are the only seed regularly purchased, Arran Banner and other Scottish varieties bought (v. after Table 6)

[Text continues on P.124]

TABLE 6.

CASE X : WORK ANALYSIS, 1957-58

ACTIVITY	AUG. AM	AUG. PM	SEPT. AM	SEPT. PM	OCT. AM	OCT. PM	NOV. AM	NOV. PM	DEC. AM	DEC. PM	JAN. AM	JAN. PM	FEB. AM	FEB. PM	MAR. AM	MAR. PM	APR. AM	APR. PM	MAY AM	MAY PM	JUNE AM	JUNE PM	JULY AM	JULY PM	YEAR AM	YEAR PM
A NON-FIELD WORK																										
Sundays, Feasts(1)	5	4½	5	4	4	4	6	6	6	6	6	6	5	5	6	6	4	4	6	6	7	5	4	4	64	64½
To Valletta or Kosta			1						1	1	2½		1		1			1							2½	1
Ill-health and resting(2)	½		½	½			1	1															1		2	3½
Too wet for field-work					10½		8½	9	13	3	6	4	5	1	3	2	2	2½	1						32	38½
Too cold for field-work										1															1	
Pigs needing attention																1	1								2½	1
Shooting birds			1				1½																		1	
Repairing Storm Damage(2)										1					3	2									5	3
Other building Work(2)	1		½		4	5	4½	3	3	1½							2							15	8½
Implement maintainance												1				1										2
B FIELD WORK																										
Irrigating	1	11		8											1½	1½	4		2	5	2	11	-	11	8½	48½
Plowing, working(3)	½		2		4½	6½	1	2½	1	2			7	4	2	2	6½	3							25½	20
Manure; refuse	2	1½	½															1			1½	1½	8	3	12	7
Threshing (grain & sills)			½																2	2	½	2	1½		4½	4
Transporting produce	1½	3	3½	2½	3	2	1			½											4	2	1	4	14	14
Sulphate spreading									1		1				½										2½	
Spraying(4)																1										1
"Among the trees" (general)(5)								1	1		2	2	7	8	8	7	3	2½	2						23	17½
APPLES(5): GATHERING	7	8																			2		14½	4½	23½	12½
" : "DUGGING"(6)	3½	4	7	11	1																				11½	15
VINES: GRAFTING											5½	6	1	1											6½	6
PRUNING											3½	3	2	2											5½	5
PICKING	1		4	2½																					5	2½
Making Wine			½	1																					½	1
TOMATOES: PLANTING																1		2		1						4
PICKING	½		1		1	1																			2½	

continued.

6:Beeley K-5 (1957-1958) 1959 E26 Malta E26

[P.122]

*159 241 for January planting at 3-4 cwt. per tomna. Seed from crop used for sowing in following autumn.

(4) - Manure.

- Mixed urban refuse and animal manure plowed in to 12-18 inches.
- One field of 2 tmien received 1 truck load refuse and 30 sacks dry manure.
- One field of 1.5 tmien received 50 sacks of animal manure from G's stock.
- Vines receive c.¼ cwt. artificial fertiliser per tomna almost every year.
- Wheat receives from ¼ to 1 cwt. artificial fertiliser per tomna per year, broadcast with the seed.

H. General.

*159 [402] [423] [464] [178]
- Partnership has prevented excessive fragmentation of father's land.
- Free exchange of labour allows G to maintain a relatively large holding despite the inability of his young children to assist him. If these children wish to continue in farming, pressure on land will result.
- G therefore encourages his children in their education with a view to emigration and/or employment outside farming.

[435] [451] [461]
- G has no real idea of costing of his production. Can give details of income and expenditure, but makes no allowance for enormous application of labour (see E) necessary for very modest income (see F).
- Willing to undertake still more labour (e.g. in spraying fruit trees) to avoid cash expenditure.

[157]
- All this despite the fact that G is well above average in intelligence and standard of education.
- Conservative in techniques and attitudes but eager to invest in proven successes (e.g. extension of vines and apple orchards, development of pig-farming). However, markets may already be glutted.
- With clear, patient, personal and disinterested advice and encouragement, G could probably much improve his methods and yields to make his holding a more profitable enterprise.

*159 423 CASE XI : Pietru (An arable farmer mainly concerned with irrigated produce.)

The nucleus of Pietru's farm is a block of 14 irrigable tmien on which he spends the greater part of his time. His home is about a mile away in the village and he also holds a large number of patches of dry (baghli) land scattered over the northern part of Malta. The more outlying of these dry fields have tended to be neglected, or left to Pietru's wife and family to work, while he has concentrated on building up and developing his irrigable holding. His father bought four of these irrigable tmien after the 1914-18 War although at that time the area was covered with concrete. This was laboriously removed and irrigation channels ('canali') installed. Other adjacent patches were acquired as they became available - Pietru himself acquiring the latest addition in 1954. He had taken over from his father some years previously although he had started his working life as a mason.

*159 241 464 Today Pietru, his son, wife and daughters cultivate the 14 tmien very intensively. The suggestion of a pathway is rejected because "it would take up too much irrigable land".

*159 ●29 311 The larger pieces of ground are put to potatoes, tomatoes, artichokes (qaqoċċ), marrows (qargħa bagħli), and a variety of vegetables. Fig, pomegranate and other trees fill the corners and edges of fields and a tomato seed-bed and a hen-house also manage to find space in odd corners. Two machine-[406] [343] driven pumps and a few tiny storage and shelter rooms complete [134] the scene. The block of fields is in a small sheltered valley on the east coast of the Island and contains clay soils tending to be heavy, especially in wet weather.

*159 241 433 434 829 [464] Pietru's irrigable fields are clearly the focus of his interest and attention. He observes that they bring in a greater profit per man/day of effort than do the dry fields which he prefers to leave to the wife and children to cultivate on a more casual basis. Nevertheless Pietru is not able to make a profitable concern of his farm despite his own heavy working schedule and the full-time assistance of at least two teenage children. In fact he is poor enough to qualify for C.A.R.E.[27] food distributions. He is however content with farming as an occupation and critical only of the lack of adequate remuneration. His attitude is to 'make the most' of his farm within current limitations. He was a [474] founder member of a C.A.R.E. sponsored tractor co-operative (Section 2) although he admits that when the project was first suggested he was opposed to it on the grounds of rather having the money than letting the Government get it. This belief that the Government is behind everything is characteristic (Section 4). C.A.R.E. is of course an independent organization distributing American surplus food and equipment.

*159 178 241 Thus Pietru's son who works full-time with his father is faced with his father's industry and enthusiasm for farming on the one hand but he can see for himself the apparent impossibility of achieving anything above low living standards. Whether he will join the trek away from farming is not yet clear. His educational standard is lower than is the case among many of his generation and it may be that he will have difficulty in finding employment outside farming.

If Pietru can improve the efficiency and profitabily of his farm (by using better suited crops, new methods and new equipment with Government financial and advisory assistance) his son might be pursuaded to stay in it. The problem of Maltese farming today is that there are very few young men in the farming industry who show as much inclination to [426] stay on the land. The Government has been keen to assist [654] the full-time farmer with loans and other help in an effort to encourage him to stay on the land and to develop agriculture to the full but it has done comparatively little for the young men in farming who are, in the long term view at least, the more important. If they cannot be induced to stay in farming the industry would appear to be doomed.

CASE XI : Summary.

*159 (An arable farmer mainly concerned with irrigated produce.)

A. Land.

423 (i) 14 tmien irrigated land in single block of five fields
427 in Mellieha District. 2 tmien freehold.
(ii) c.8 tmien dry land in single block of 3 fields in Qawra District.
(iii) 45 tmien in single block (of which 37 wasteland) in Bajda Ridge area.
(iv) c.6 tmien in 21 scattered field plots in Marfa.

These lands lie on the periphery of a triangle with sides measuring 4½ miles X 2 X 2 miles. Leased land is held in a variety of ways e.g. some is held on an annual lease at a rate of 15/- a tomna, other is held in emphyteusis from the Government. Of the latter, a composition fee of £200 replaced an annual rental for the last 45 years of a 99 year lease for 45 tmien. For the rest a peppercorn rent of c.2/- a tmien per annum.

*159 B. Utilisation. With parcels of land so dispersed and so
● 241 variable in quality great variations in land use may be observed.
(i) The irrigated land carries potatoes, tomatoes, artichokes, a variety of pumpkins and marrows and many other types of vegetables. Tree crops are raised on the plot boundaries. Crop list: Potatoes, Tomatoes, Artichokes, Cucumbers, Marrows, Pumpkins and Water Melons. Bulbs, Black and White Vetches, Turnips, Vines, Celery, Endivon, Onions, Maize, Kohl Rabi, Carrots, Garlic, Figs, Pomegranates, Apricots and Peaches.
(ii) The unirrigated land ranges from patch cultivation of cereals, beans and peaches on Bajda Ridge to vines, cereals and vetches in the other districts. These parcels get only c.60 man-days work each year. This land although neglected is held, partly because of the low-rent emphyteutical leases, partly to supply small amounts of fodder and forages for the few livestock.

*159 C. Livestock. During 1957/1958 2 heifer calves. Cattle are
231 only kept for rearing between ages of c.3 and c.18 months, and for supplying dung. 4 goats (2 ewes and 2 kids) and 3 sheep kept for supplying domestic milk and cheese needs. No work animals ('bejjem tax-xoghol').

*159 D. Capital.

[423] - 2 tmien freehold irrigated land valued at £200 and
[435] freehold house in the village.
[454] - No liquid reserves other than petty cash, according to statement made to C.A.R.E. Estimated possible total less than £100.
[406] - Equipment. No machinery other than local tools and a fixed diesel water-pump. Not averse to mechanization but suspicious of credit terms.

E. Labour.

[464] - Family Labour of one adult son and occasional work from wife and from four other children. Mutual aid arrangement with brother-in-law.
[474] - A member of a C.A.R.E. implement co-operative (Section
[241] 2) which entitles him to favourable terms for tractor-ploughing: shallow-ploughing at 10s per tomna and deep-ploughing at 20s per tomna. This represents a saving of 5s per tomna in return for a deposit to the Co-operative of £2.
[464] - Rarely hires labour.
[461] - An analysis of the daily work schedule based on an original record kept by the farmer's daughter:

TABLE 7

	July[f] 57		Oct 57		Nov 57		Dec 57		Jan 58		Feb 58		May 57	
	am.	pm	am.	pm	am.	pm	am.	pm	am.	pm	am.	pm	am.	pm
Sundays, Festas	4	4	4	4	6	6	7	7	6	6	5	5	7	7
Business, Valletta	.	.	.	.	1	.	1	.	.	.	.	.	.	.
Repairs fields & buildings (storm)	.	.	2	4[1]	1	3	.	.	.	.	.	.	.	.
No work (storm)	.	.	7	7[g]	6	3	3	3	8	7	2	2	.	.[j]
Irrigation	8	8[j]	1	2	.	.	.	.	.	.	.	2	8	8[j]
Plowing	3	2	5	3	.	.	.	.[a]	3	3[b]	1	1	2	2
Planting, sowing	.	.	4	3	6	6	12	11[a]	7	8[b]	4	1	7	2
Working, etc.	5	5[c]	4	2	3	5	1	2	4	4	5	3	.	3
Cutting, reaping	8	9[d]	2	1	1	1	1	1	1	1	2	2	4	3
Lifting potatoes	.	.	.	.	.	.	.	.	.	.	3	3[h]	3	5[l]
Threshing	.	3	.	.	.	.	.	.	.	.	.	.	.	.
Loading, transporting	2	1	1	1	.	.	3	3	.	2	.	1	.	2
Vines, prune, graft	.	.	.	.	.	.	.	.	.	.	6	7	.	.
Collecting kaxix[k]	1	1	1	4	5	5[k]	3	4	1	.	.	3	.	2
Collecting seaweed			.	.	1	1	.	.	1	.	.	.	.	.
	31	31	31	31	30	30	31	31	31	31	28	28	31	31

Notes

a. silt potatoes.
b. potatoes 3.5.
c. working, weeding, dressing, spraying, manuring, hoeing, etc.
d. wheat and barley 4.2.
e. kaxix - general greenery for animal fodder.
f. data for other months not available.
g. the latter part of 1957 saw exceptional storms in Malta & Gozo.
h. the winter crop a month late on account of damp conditions.
i. the spring crop.
j. irrigation in dry months.
k. kaxix gathering peak after 2 months of rain.
l. including 2.2 attending to animals (too wet to work fields).

F. Production and Sales.

(i) Main cash-crop irrigated potatoes - Arran Banner. Two crops - winter and 'early' crop, the latter for export. Yields vary considerably in spite of irrigation - winter crop 1956 double the quantity of the winter crop 1957. Soil conditions for cultivation and for germination can vary critically between November and February. Prices similarly vary considerably. 1956 - maximum price obtained 30/- per qantar. 1957 - April maximum price obtain 25/- per qantar. 1957 - May maximum price obtained 15/- per qantar.

(ii) Tomatoes. Pickings from May to October with peak production in July. Prices vary inversely with production (F/253). Irrigated local varieties only are grown. The best tomatoes are kept for seed, the next grade carefully selected for sale through 'pitkal' middleman for local market, the third grade sold to the tomato paste ('Kunserva') factory. Prices range from 10d. to 1/6d. per wizna, but vary with quantity available rather than with quality. Regarded as preferable to potatoes since the farmer believes they are less expensive to produce.

(iii) Artichokes. Irrigated perennials producing for up to about 8 years. Best marketing period is during Lent. Great efforts made to raise a crop early in

*159 433 435 February when prices start at c.9d a head rather than later in the year when they drop to c.4d a head.

(iv) A variety of other vegetable produce fruit and grapes are sold in small quantities.

(v) Stated cash income - £200 per annum. Regular income comes from arable products. Every two or three years sales of young heifers in calf bring in sizeable sums e.g. in 1958 one such Friesian heifer was sold for £170 and a 3 month old calf bought for £61.10.0.

G. Husbandry.

*159 ●241 (i) Land:

(a) Main concentration on maintaining high yields of vegetable crops on irrigated land, usually by heavy manuring rather than rotational farming. In 1956 - used all dung from own livestock.
- Purchased £100 worth of dung from an urban milk producer.
- Applied 25 bags sulphate of ammonia @ 25/- to 27/6d a bag.
- Collected several cartloads of mixed refuse from Government centre.

Dung applied directly to cucurbits, but mixed with refuse and sulphate of ammonia otherwise.

(b) On non-irrigated land crop sequence usually cereal, leguminous fodder, potatoes, except on poorest land where vetches alternate with barley.

[461] (c) Irrigation takes much of labour-time and water is applied empirically. A typical early potato crop will be watered 13 times, each watering by channel-and-bed control taking 1½ days.

[242] (d) Chemical treatment of the crops is accepted but not understood. Since 1953 Chloride of Lime and Copper Sulphate sprays have been used but the farmer is not at all sure of why they should help - the sprays are applied "when the potatoes show a blackness". This exemplifies a general attitude that certain pests and diseases can be treated with one or another of the "medicines" but considerable mystery surrounds the methods of application and the processes concerned.

(ii) Seeds:
Relies entirely on seed plant strains except for potatoes. Is prepared periodically to buy Arran Banner seed-potatoes and in 1958 plucked up enough courage to try a new strain - Eigenheimer.

*159 231 (iii) Livestock:
Only interested in rearing heifers which are fed traditionally on a little grain, green fodder including "hexix", sulla, hay and beans.

H. General.

*159 241 433 435 [465] (i) An example of better kind of intensive market gardener. It is unlikely that without a complete re-organisation of his farming life any more irrigated land could be worked. At present casual labour costs of 15/- to 25/- a day, expansion of the labour force would be impossible. The only relatively simple economic improvement that could be made is the raising of quality standards and to a limited extent yields. In Malta there is no effective price differential between products of different quality, and the local market is very quickly saturated. This cultivator and others like him vaguely realise the predicament and pin their faith on minimum price guarantees, which in fact have little to do with the case.

*159 451 (ii) The farmers children keep rough accounts but only of the main items of disbursements and income. This is one of the few farmers who occasionally put a monetary value on his own labour. That of the family was taken for granted.

000

was taken for granted.

*159 (iii) Reasonably prepared to try new crops if they are proven
178 in his district. Not prepared to accept anything
242 technically as revolutionary as a wheelbarrow mainly on the ground that "it is not used here".

*159 CASE XII : Ċenzu (A cows' milk producer and village weighman.)

557 Ċenzu is an example of one type of part-time farmer in
241 Malta and Gozo in that his farm is the more important of the two occupations for his livlihood. His work as licensed
234 village weighman is important both because of the extra in-
[463] come which it brings and on account of the social standing which goes with the office. He is a shrewd and literate man who earlier in his life also engaged in importing and
[454] other business. He was one of the many farmers able to
[362] build up a substantial reserve as a result of the 1939-45
[727] War. The house is spacious and well-appointed by local standards and Ċenzu and his small family enjoy comfortable living conditions. His pre-War premises were damaged during the War and he received some £1800 official compensation to which he added a further £1200. This money was put towards the new house and towards the costs of building
*159 up his present herd of 12 cows, a bull and 10 goats. The
234 milk produced and sold to the M.M.U. provides the basic
434 element of his income but he also grows cash crops for sale.
241 In the 1956/57 winter a third of his crop area was devoted to fodder. This increased to 7/8 in the following winter but, given a substantial improvement in the prevailing prices for cash crops, it is likely that he would devote more space once again to those and buy in a larger part of the fodder
[432] needed. In 1957 he purchased over £1000 worth of fodder and received about £1350 for milk sold during the same period.

*159 Unlike most farmers he keeps detailed records of his
829 income and expenditure on the farm and animals and on the
494 weighing side of his business, but he remains unwilling to
[451] discuss his revenue with even apparently trusted outsiders. This reticence seems to relate to the traditional independent outlook of the farmer, rather than to any anxiety to hide his accounts from a sense of guilt. He was prepared to join the Malta Milk Company (Il-Kumpanija Maltija tal-Halib) because he saw this as of some benefit to the milk producer in his relations with the M.M.U. authorities. But he has never been a member of a farmers' union and is clearly not interested in them although he thinks "A union might be a good idea". He shares the typical failure to appreciate the rôle of an efficient Union. Neither is he interested in joining a producers' Co-operative (Section 4).

000 As village-weighman he has a high social standing in the

*159 As village-weighman he has a high social standing in the
829 district. His literacy, spacious house, and herd of cows
178 further enhance his status. He maintains that within the
[554] village the place of the Parish priest is as ever it was
[793] "in spite of the new learning". He notes that the increas-
[626] ing number of dissenting voices in the village are kept
firmly in their place by the pressure of public opinion but
[177] that political rivalry, a comparatively recent feature in
the village, is growing. The returning emigrant brings new
ideas - including some on religion - but the strength of
the Church remains much less questioned than is the case in
[799] the towns. Census shares the still general view that money
given to the Church is "payment towards the good of the
[651] community". Money paid to the Government in the form of
taxes would, on the other hand, be regarded as an imposition
bringing no benefit to the individual, and therefore to be
avoided.

CASE XII : Summary.

*159 (A cows' milk producer and village weighman.)
423
427 A. Land.

33 Tmien in Mqabba-Kirkop Plain:
4 Field plots in 3 parcels, on Terra Rossa Soils and Xero-Rendzinas.
All leased from 2 landlords: Total rent £34 per annum.

*159 B. Utilisation.
24

Over 5 Tmien wasteland.
Main concentration on fodder, which accounted for 74% crop area in 1957/58, as against only 33% in 1956/57 winter season.
2 tmien under barley - pulled green.
3 tmien under sulla.
6½ tmien under vetches.
5 tmien under wheat.
c.10 tmien under potatoes.
Remainder under vegetables, prickly pear and fallow.
Main cash crops potatoes and onions.

*159 C. Livestock.
231
234

Late 1957 - 13 head of cattle (10 milch cows, 2 calves, 1 service bull). All Maltese Friesian. 10 goats; 1 ewe; 2 horses; 50 poultry; rabbits.
This herd was built up from 6 goats, 4 sheep and 1 cow in 1938.

*159 D. Capital.
[423] - No freehold land. Owns large village house.
[454] - No statement as to capital reserves but general evidence suggests a sum of the order of £1500.
[407] - Equipment - no machinery, but normal range of local tools.

*159 E. Labour.
464 - Family labour - one 30 year old son.
- In 1956 male hired labour amounted to 60 days, and female to 90 days.
[465] Cost - men c.£1 a day, women c.14/- a day.
Hand labour almost entirely for sowing during autumn and winter and harvesting in early summer.
[429] - Hires heavy tractor plow, rotary cultivator and
[241] threshing machine each year. Costs of contract
[407] plowing 15/- to £1 a tmien.

F. Production and Sales.

*159 433 434 234 [292]
(i) Cows milk sales range from December minimum of c.153 lbs. per day to April maximum of c.290 lbs. per day. Regards 3 gallon output per head a day as minimum profitable production. Milk receipts in 1957 c.£1350. (Costs of purchased fodder £1000).
- Goats milk sold for cheesemaking ('rikotta').
- About 20 gallons per annum of cows milk for cheese production.
- Practically no liquid milk drunk by family.

*159 ● 241 [435] [433]
(ii) Potatoes - Winter Crop - September to December.
- 'Early' Crop - January to April.
Relies entirely on Arran Banner. Destination of crop depends on price e.g. Winter Crop 1956/57 sold at 25/- per qantar for export. Winter Crop 1957/58 sold at 27/- per qantar for local market.
- Usually produces c.50 qantar per annum and 4 or 5 used for domestic consumption.

[433]
(iii) Onions produced for export and local market and for home consumption. Production fluctuates with climate - yields between extremes of 20 and 40 qantar per tomna.

(iv) - Small sales of vegetables - considerable range grown.
- Fodder production meets c.one-half requirements.

G. Husbandry.

(i) Land
(a) On best land typical sequence would be.

Sept.	(a) Heavy manuring - 96 bags of dung and refuse per tomna.
Sept.-Dec.	(b) Winter crop of potatoes.
Jan.	(c) Artifical fertiliser - Sulphate of Ammonia 1 bag per tomna.
Jan.-April	(d) Spring crop of potatoes.
May-Aug.	(e) Summer fallow.
Sept.-April	(f) Two crops of potatoes as (a) to (d).
May-Aug.	(g) Onions - on watered land.
Sept.-May	(h) Cultivation for and growing of wheat crop.
May-Aug.	(i) Fallow.
Sept.-April	(j) Sulla.

(b) More usual practice (which is not though of as a strict rotation) is local variation of four-year cycle.
- Manuring. Potatoes, Onions, Wheat, Sulla, Vetches and seed fodders such as Toffa and Ginglin are introduced into this basic schema.

(c) On fields near house domestic vegetable crops, e.g. garlic, brassicas, pumpkins, and marrows.

(ii) Seeds
- Mainly relies on own seed but periodically buys seed-potatoes for maintaining standard of 'early' crop.

*159 232
(iii) Livestock - Breeds cattle from own stock but prepared to experiment e.g. interested in artificial insemination.
- Feeding. Has a fair idea of fodder needs of livestock but uses traditional combination of green legumes, sulla hay, beans and concentrates without measurement. Has started purchasing ready-mixed balanced feed.

H. General.

*159 433 451
(i) An example of the best type of cows' milk producer. Keeps rough accounts of expenditure and receipts from most of sales but even so does not think in terms of profit-income and does not compute family labour in monetary terms at all.

(ii) Is tending towards specialising in cattle-breeding and is inclined to doubt the value of the arable sector. Is typical of most of his class in that he keeps no accounts of fodder-production on his own

*159 433 451 land but maintains that it is becoming uneconomic because of high labour costs and difficulty of raising yields any further.

(iii) Makes careful practical distinctions between types of land:

*159 134 241
- some fields have 8 inches of soil on rock platforms and these can only be worked by hand.
- deeper soils up to 3 feet thick need periodic deep plowing although this may result in the bringing to the surface of "newba" (or "melħ" - salt) - sub-surface saline concentration with harmful results.
- red and white soils have different characteristics for tillage and crop-growth.
- notes the presence of a thin, very hard weathered layer on top of Globigerina bed rock. This "skorża tal-blat" is believed to prevent the movement of moisture from the rock water-table to overlying soil.

*159 159 626 (iv) In spite of literacy, general initiative and acumen he is conservative about trying new ideas. Here, as elsewhere, the chief obstacle appears to be social rather than economic - the fear of being different and the fear of failure in the eyes of the rest of the community.

*159 829 (v) In spite of (possibly because of) experience in check-weighing, is no more prepared to trust M.M.U. and official marketing agencies than any other farmer.

CASE XIII : Toni (A part-time arable farmer and caretaker of a military camp.)

*159 241 434 An example of part-time farming in which the field operations are the subsidiary part of the business - from the financial point of view though not as regards the amount of time spent on them.

His caretaking duties bring him some £5 per week for most of the year and yet leave him with enough free time to cultivate several irrigable patches near the camp. Now aged nearly seventy he works a much smaller total area than the thirty tmien of his younger days. He could in fact live on his income from his caretaking and continues to work the fields for four reasons:

(a) To provide food for his present family of three,
(b) To produce a supplementary income from the sale of cash crops,
(c) To occupy his time with the farming which he knows - as something of a hobby,
(d) To provide his emigrated sons each "with a piece of land" when they return to Malta for their retirement.

241 198 46 *[159] Items (b) and (c) reflect his independence of farming for the maintenance of himself and his wife and daughter, while (c) and (d) suggest that although farming ceases to be the countryman's livlihood he inclines to retain a residual interest in it even when he has been away from Malta for the greater part of his working life. This is a characteristic [369] feature of rural Malta and an important aspect of the recent [162] increase in part-time farming. The 1957 Census of Agriculture lists 9,588 part-time as against 7,813 full-time farmers (B/164, p.20). The trend towards part- in place of full-time farming is significant in the present overall retreat from agriculture. It represents in many cases a

241 first stage in the move from the land and one expects it to
178 be succeeded, possibly in the following generation, by a com-
461 plete break with the land or the maintenance of a purely residual and casual interest, as in (d) above. In this
*[159] case, Toni continues to produce cash crops for sale but his sons when they return are not likely to do so. Thus this type of small scale part-time farming will have little or no importance in agriculture as a producing industry.

*159 Toni himself substantiates this view. "Farming has no
241 future in Malta since there is no money in it for the younger
178 generation, and so you can't expect people to go on working
829 fields if they can avoid it". He sees the farming population as a depressed class and attributes this in large part to the fact that "The farmers count for only 12,000 votes at election times". Unions are, for Toni, "no use for the farmer and his problems" because, it appears, of suspicion and ignorance. He further observes that "the Maltese farmer grumbles easily - because of the same factors. This is itself discouraging the younger farming generation from staying on the land and struggling against rising costs to sell products which are but feeble competitors against the imported article.

He remains dubious of the effects of even the present Government policy of assistance by both financial support in various forms and attempts to introduce more efficient methods and better adapted and therefore more profitable crops, etc.

CASE XIII : Summary.

*159 (A part-time arable farmer and caretaker of a military camp.)
423 A. Land.

- 2 plots of irrigated land at il-Ghadira and il-Hofra both in the Mellieha Isthmus area.
- Several plots of dry land, usually held idle for relatives who are expected to return from Canada.
[427] - Soils: i-Iklin complex.
- Rented from Civil Government and War Department.

*159 B. Utilisation.
[241]

- Irrigated plots carry potatoes, tomatoes and vines with a great variety of vegetables.
- Dry land: potatoes, tomatoes, beans, sulla, onions, herbs for home consumption.

[231] C. Livestock. 60 or 70 rabbits, 1 sheep.

*159 D. Capital.

- No freehold land, but owns a house in the village.
454 - Usual hand tools.
422 - Spray and rotary cultivator recently acquired.
423 - Financial position not disclosed but appears to have considerable reserves.
- Owns a car.
- Son owns motor lorry sometimes used on holding.

*159 E. Labour.

- Some help from wife and daughter but remainder of family have either emigrated or entered non-agricultural employment in Malta.
[465] - Formerly hired a labourer at £5 per week but he left for the Dockyard in 1955. In 1958 it was difficult

*159 [464] - to find farm labourers even at 25 to 30/- a day.
- Occasional hired help at harvest time.

E. Production and Sales.

[434] - Main profit from tomatoes, grapes and potatoes.
Subsidiary income from vegetables.
[433] - Attempts to space out production and sales by using
[251] many different varieties and storing, e.g. potatoes until prices are high.

G. Husbandry.

*159 201 43 (i) - Potatoes: three crops annually on best land.
- Artichokes: replanted every 4 years.
- Tomatoes: seed beds attached to irrigated plots carry many varieties.
- Melons: has experimented successfully with seed sent by relative in Canada.
- Cauliflowers: 4 crops between August and March, earliest sold before heads are formed.

(ii) - Manure brought from Luqa: 4 truckloads - £22 plus £8 for carriage will last one year.
Also uses town refuse.
- Copper sulphate spray for potatoes, paraffin spray as weed killer.

(iii) - Has recently added to holding by reclamation of wasteland. Constructed a 2-tmion field, soil for which cost £150 (20 truckloads) and transport £50. This field returned £60 worth of potatoes in first year, £35 of tomatoes in the second. In autumn 1957 was preparing to repeat the process.

(iv) - Irrigated land rested under sulla every fourth year.

H. General.

*159 242 [463] [465] An unusually proficient part-timer cushioned by income from position as camp caretaker (£5.12.0 per week when camp not fully occupied). His job appears to leave him plenty of time to devote to his holding. He is willing to experiment and take risks, though experiments are concealed from his neighbours until proved successful. Has a lively appreciation of how to obtain best returns from his produce; very much au fait with market conditions.

*159 434 [451] Keeps fairly careful accounts and, according to his own statements, makes a profit of £250 p.a. from farming:

Receipts from produce	£430
Labour costs	£ 50
Goods, manure, transport	£150
Profit	£230

Value of produce consumed by family £30.

His two jobs have made him appreciably more prosperous than his neighbours. Without the subsidiary income from caretaking his financial position would be extremely precarious. As it is he is able to amass a considerable [454] capital reserve.

PART 2. Heavy Tractors and Maltese Farming.

*159 157 829 CASE XIV : Ġanni (A young, progressive contract-plowman, with heavy tractors and other mechanized equipment.)

Ġanni is a bachelor in his late twenties. In most respects he is quite atypical of Maltese farmers today but his work and attitudes illustrate most vividly the economic, technical and social problems facing agriculture and the rural community in Malta.

His youth, his knowledge of written and spoken English, his first hand acquaintance with Australia, the United Kingdome, Italy and other countries, his belief in mechanisation as the way to make money in Maltese farming, his social

*159 159 829 rejection of his village background, and his attitude to agricultural and other authorities in the Islands all mark him out as apart from the 'traditional' kind of farmer. At the same time, however, his case reflects the frustration and impatience of his own generation in the agricultural community.

*159 423 169 199 241 [441] He comes of a village family in which his father and paternal grand-father were both butchers. His father acquired a small farm of some two acres to provide vegetables for the family but neither Ġanni nor his brother, a few years his junior, was keen to expand the family holding. The family butchering business held no more attraction for them and was relinquished by the father when he retired from full-time work some years ago to run a small bar in the village. Both the brothers thought that neither butchering nor farming presented scope for money making so they emigrated to Australia. Ġanni's seven years there left him unsympathetic towards farming as practised in Malta, with its fragmentation, hand-labour and other limitations. He saw mechanization on the Australian pattern, with tractor-drawn, three-furrow plows, combine-harvesters and a variety of other large implements, as the only way to make Maltese farming a profitable venture.

*159 177 241 409 He returned home full of ideas of making money as a contractor-plowman. His native knowledge of Maltese farmers and farming left him with no illusions as to possibilities. Ġanni's subsequent efforts to find takers for his deep-plowing have entailed a hard fight against prejudice and criticism. Clearly many of the objections raised as to his methods and machines being unsuitable for Maltese conditions have not been without foundation but he has pushed ahead, working over a larger area, buying new types of machinery, etc.

The present discussion is concerned less with the technical details of this kind of heavy mechanization in Malta than with the attitudes which it reveals - especially the tremendous gulf in outlook between the older farmers and the few <u>young</u> men like Ġanni who are still making some effort in Maltese farming. It is held that these latter are more important than their present numbers would suggest since, without their sustained effort, an economic and social continuity will be lost. They are individuals upon whom some new or improved farming could be built in Malta and Gozo.

*159 241 829 <u>Ġanni's view of farming in Malta.</u>

"Farming in Malta is today generally uneconomical because of the high costs of the necessary hand-labour and because of the difficulties facing the mechanisation of field-work" (Ġanni). He attributes what he regards as the present dismal prospect of Maltese agriculture to the lack of a guaranteed exportable crop, on the one hand, and to the lack of direction to the farmer from the agricultural authorities, on the other. Nevertheless he believes that neither

*159 241 829 of these problems is without solution and he puts a great part of the blame on the Maltese farmer himself who is prevented says Ġ by his illiteracy and suspicion from uniting and from seeking to improve his own farming. He maintains that it is possible to make money in farming today in the Islands, but only with the right methods, ideas and facilities. This is where he himself comes in, for he believes his ideas on mechanization are the answer, leading to the elimination of hand labour as far as possible. He insists that a profitable farm must be a workable unit, that is a large patch of twenty, forty or more tmies capable of being worked by mechanical implements. Moreover, he insists that the farmer should, where possible, sell his own produce to the consumer in order to evade the 'middle-men' and thereby make a greater profit.

Ġanni himself talks vaguely of acquiring such a farm, although to date his contract-plowing has absorbed all his profit-making energies.

Ġanni's view of the farmer in Malta.

He lays a great deal of the blame for the present agricultural difficulties at the door of the farmers themselves. His view of his fellow farmers and villagers approaches cynicism: "The farmer's illiteracy prevents him from admitting that anything could be better than that which he knows. It also prevents him from trusting other farmers and prevents him from realizing the folly of putting bad-weight with produce for export. The young people who are far from illiterate and will listen to reason are not staying on the land long enough for this to be of lasting benefit to agriculture". He observes that the farmer is keen for a sure profit but not at all anxious to plunge his often considerable capital into [178] a new venture such as buying a tractor. In fact he will not accept any new method or crop before he sees it a working success - preferably in a field near his own. This applied particularly to the 'outlandish' ideas on deep-plowing which Ġanni brought back from Australia. His fellow villagers regarded his 16" mould-board, three-furrow plows with great suspicion, and his ideas on potato-ridging, combine-harvesting and threshing met with no more approval initially.

[454] Ġanni insists that the farmer's saving is merely "an aimless accumulation of money: a man may look poor in dress and have £1000 tucked away". He says of an old lady in a nearby lonely house "She wears no shoes and has never been to Valletta but will die leaving thousands".

181 241 829 This conservatism and reluctance on the part of the illiterate farmer emerges, therefore, as a major difficulty in the way of improvement and modification. It is one which tends to be overlooked by well-meaning experts and officials who forget that, unlike themselves, the farmer is unable to

181 rend of successful experiments of one kind or another in a
241 foreign land - he will only be satisfied with conclusive proof
829 before his own eyes. Moreover the farmer often finds it hard to convince himself that some expert or high-ranking advisor on affairs agricultural can in fact be working for the benefit of the farmer and not himself. This is something new in his experience.

Mechanization.

*159 Ġanni and his brother work their machinery contracting
407 business together, doing all but the biggest repairs. They
422 have (1958):
429 (i) a three-furrow (previously a two-furrow) mould-board
472 plow, the only one in the district,

(ii) a triple disc-plow (originally a double) for heavy ground,

(iii) a rotavator. Originally the brothers had a small rotavator but they complain that this does no more than kill off the weeds for a short time and harden the soil just below the rotavated surface. In 1958 they were buying a 5' trailer with 4 revolving claws which met with much derision from local farmers because of its weight.

(iv) a three-ton truck,

(v) a twelve-tined harrow,

They are keen to add (1958) a thresher and a small combine harvester which "might work in Malta with effect". Ġanni would rather "import a combine than let £1000 lie idle in the bank, unlike most other farmers". "New machinery soon pays for itself and is the way to make money in Maltese agriculture today". He advocates tyred tractors for Maltese conditions as they are easier to get out of rough ground and more convenient to cope with road transit. Many farmers prefer the caterpillar-tracked type (v. Case XV). He maintains that the tyred tractor is better even for the deep-plowing which he advocates. This deep-plowing has grown in popularity only
[465] slowly - Ġanni is fully aware that "there may be drawbacks", but he reckons to work his four-month season each year to the full, earning about £5 per day on six days per week. The rest of the year is taken up with contract work with the machinery on building and other sites together with some attention to the few fields held by the family. The area covered by the brothers in their plowing operations extends to something like a quarter of the area of Malta (v. B/381).

Ġanni and the village.

*159 Ġanni is an outsider in his own village in so far as his
150 literacy, travel and, especially, his Australian experience and his 'new ideas' have put him socially out of touch with his fellow-villagers. He maintains enough of a link with the village (through his father) to be able to live there and

159 407 407 477

He insists that the Government should stop imports of new machines in face of the present decline in the demand for contract deep-plowing. He sees himself and many farmer-contractors like him going out of business in the near future.

CASE XII

[178] This farmer (working 35 tmian, including seven irrigable) was among the first to acquire machinery in the 1930's. He speaks of the slow start made in deep-plowing on account of the suspicion of most farmers who continued to use the mule or horse-drawn wooden plow exclusively for some years. Mechanized plowing is now fully accepted, he says, and, for the contracting plowman, is still a most profitable venture despite the present fierce competition for business.

CASE XX

159 407 241 434

Whereas CASE XIV-XIX have concerned plowing and threshing contractors whose own fields are of secondary importance as a source of income, this man is typical of the growing number of farmers who see mechanization as the means whereby they themselves can cultivate a large holding. With his single tractor he cultivates some 35 tmien single handed and supplements his income from this holding by only a limited amount of contract-plowing in the summer season.

[245] [178] He notes that a further reason for the decline in demand for the deep-plow on contract is the recent increase in the area under vines (due to the steady demand for wine-grapes by local vintners).

CASE XXI

159 256 241 407 472 [477]

This Gozitan is a part-time contract plowman whose main occupation is not farming but baking. His father was a salt-seller but this business went to a brother shortly before the 1939-45 War whereupon this man decided to go in for full-time contract plowing and threshing. For many years he remained the sole such operator in his village and business grew. However in the present decade competition from new tractor operators has "halved the work available in the summer plowing season" for his plows and threshing machine. This prompted him to build a bakery in 1954 to which he has since devoted all his time. However the tractor and threshing machine are still retained and are worked by a son as the demand arises.

CASE XXII

159 441 472 407 [191]

Another Gozitan, this English-speaking and astute man is not himself a contract plowman but is a dealer and agent for tractors, rotary cultivators and other agricultural machinery. His father began the import of tractors to the Island, but these were wheeled and soon found to be unsatisfactory for local conditions. The first 'crawling' tractor was introduced in 1939 and has since been found to be well suited to the steep paths and fields and the small plots in Gozo, especially in wet weather. Since 1951 the use of rotary cultivators has spread rapidly through the Island and has led to a sharp decline in the work available to the deep-plowing tractors. Of twelve of the latter at present in the Island some three or four are normally unused in the season. This agent sparks of an agreement among the tractor operators of Gozo to limit individual spheres of operation during the 1957 plowing season.

[178] Like CASE XIV this man has been prepared to introduce new implements. His father was the first to import motor pumps (1920), while he himself brought in the first cultivator in 1951. His latest idea has been the import of harvesting machines, but the very limited success of the first ten which he brought in has discouraged him from buying any more. He observes that the fields of Gozo are too small for mechanization on this scale and that the harvester leaves a lot of straw in the ground which the farmer insists must be collected for animal fodder.

APPENDIX I D 1 Agriculture (S/164-1957)

131 (i) AREAS

AREA of the Maltese Islands..... 276,429 tmlen (77,400 ac)
Area of Malta..... 217,143 tmlen (60,800 ac)
Area of Gozo..... 59,286 tmlen (16,600 ac)

423 CULTIVABLE AREA of the Maltese Islands 156,211 tmlen (12,484 hldngs)
Holdings of dry (baghli) land.... 116,480 tmlen (10,517 ")
Holdings of irrigable (saqwi)land 700 tmlen (88 holdings)
Holdings of both dry & irrigable. 38,051 tmlen (1,879 ")

241 433 435 (ii) ACREAGE and PRODUCTION of CROPS. 1956-57

CROP	ACREAGE	VALUE(£)	YIELD(Tons)	YIELD per /acre (tons)
Wheat	5,192	96,908	2,916	0.6
Barley & Maslin	4,836	68,339	2,738	0.6
Vetches	1,727	51,983	1,354	0.8
Forages	11,000	381,150(a)	32,000(a)	2.3
Broad Beans	1,000	15,233	356	3.5
Cumin Seed	14	180	3	0.2
Cotton	35	800	8	0.2
Locust Beans	500	20,000	1,500	3.0
Total	24,304	616,603	40,875	
Potatoes (spring)	6,000	350,000	21,000	3.5
Potatoes (autumn)	3,057	193,384	9,157	3.0
Melons	2,721	32,908	1,714	0.6
Onions	789	47,970	3,000	3.8
Tomatoes	3,000	146,000	12,000	4.0
Other vegetables	3,897	344,744	18,438	5.0
Total	19,259	1,115,016	65,307	
Grapes	5,304	171,102	5,347	1.0
Citrus	160	32,000	510	3.0
Other Fruit	1,000	105,000	4,000	3.0
Total	6,384	308,102	9,847	
Flowers & Seeds	250	100,000	..	
TOTAL	ac.30,177	£2,139,721	116,029 Tons	

(a) Including Straw.

231 (iii) CLASSIFICATION OF LIVESTOCK. 1957 (September)

	Malta(1957)	Gozo (1957)	TOTAL(1957)	TOTAL(1949)
Horses.....	1,888	389	2,057	2,783
Donkeys.....	1,732	1,107	2,839	3,335
Mules.....	1,535	349	1,884	2,284
Goats.....	21,630	10,428	32,058	
Billy Goats.....	417	177	594	50,677
Kids under 1 year...	3,364	3,121	6,685	
Sheep.....	8,091	4,241	12,332	
Rams.....	98	43	141	21,237
Lambs under 1 year..	1,015	1,330	2,345	
Bulls.....	377	294	671	
Heifers Pregnant....	339	195	534	
Heifers other.....	731	383	1,081	
Milch Cows.....	2,535	953	3,492	3,633
Stud Bulls.....	111	26	137	
Maltese Draught-Cows	109	6	115	
Imported Store Bulls	2,883	834	3,884	
Breeding Sows.....	2,783	898	3,381	
Boars.....	214	87	301	20,015
Sucking Pigs.....	935	367	1,302	
Other Fatteners.....	6,381	1,733	8,314	
Hens.....	186,883	126,630	312,313	
Other Poultry.....	5,148	1,384	6,532	
Rabbits.....	43,848	10,048	53,883	

407 (iv) MECHANIZED IMPLEMENTS owned by farmers, 1956-57

IMPLEMENTS	MALTA	GOZO	TOTAL
Tractors - under 10 horse-power.....	15	11	26
Tractors - over 10 horse-power.....	26	6	32
Hand Cultivators - under 10 h-p.....	592	74	666
Hand Cultivators - over 10 h-p.....	54	19	73
Harvesting machines - under 10 h-p..	16	1	17
Harvesting machines - over 10 h-p..	1	-	1
Threshing machines - under 10 h-p...	2	-	2
Threshing machines - over 10 h-p...	13	4	17

162 241 (v) FARMING POPULATION.1956-57

	MALES	FEMALES	TOTAL
Full-time farmers.....	6,512	1,301	7,813
Part-time farmers.....	6,834	2,954	9,588
Farming population not in farming (over 14).....	5,777	14,694	20,471
Children (under 14).....	10,246	9,795	20,041
Total.....	29,169	28,744	57,913

46 241 (vi) DAYS WORKED on farms (in Man/days). 1956-57

	MALES	FEMALES	TOTAL
Full-time farmers.....	full	full	2,343,900
Part-time farmers.....	part	part	340,221
Hired labour.....	158,515	28,401	186,916
Unpaid farmers' relatives...	43,718	5,718	49,388

162 (vii) FARMERS as PERCENTAGE of Total Population. 1871-1957 (v.A)

	FULL-TIME FARMERS					as % TOTAL POPULATION				
	1871	1901	1931	1948	1957	1871	1901	1931	1948	1957
Urban	342	415	307	325	224	.55	.48	.27	.22	.17
Fringe	3923	2259	2181	1818	1150	13.7	5.9	4.25	2.1	1.37
Inner R.	5026	4224	3597	2404	1795	18.8	13.1	8.7	5.15	3.8
Rural	4856	4791	4802	4271	3133	27	21	15.6	10.8	7.8
Outer R.	1763	2200	3002	2805	1511	30	30	31	23	13.9
TOTAL	15910	13889	13889	11623	7813	11.3	7.5	5.15	3.7	2.48

NB: - Sources - 1957 full-time farmers (B/184 - 1957)
- 1957 Population (B/188)
- " other data (B/187)
- See also Map 2, and Graph

162 46 241 (viii) PART-TIME FARMING (B/525, p.112)

	1901		1956
"Farmers".....	5038	Full-time Farmholders..	4706
"Part-time farmers"..	500	Part-time " ..	5337
		Other Farmholders.....	1388
TOTAL.....	5538	.....	11411
No. of Holdings.....	9178	.....	12940

(ix) FARM LABOURING (B/525, p.111): Farmholders, labourers, field workers as % total.

	1842	1861	1881	1871	1881	1891	1901	1911	1921	1931
Farmholders %...	27.2	19.7	17.1	30.2	19.1	37.4	38.4	47.9	41.1	47.3
Farmworkers %...	71.8	78.4	80.9	68.1	78.5	61.4	60.4	51.4	58.9	51.1
Total workers %...	100	100	100	100	100	100	100	100	100	100
On land (000's)...	13.8	13.4	10.8	15.9	16.0	15.6	13.9	15.2	14.3	13.7

8:Brockman T-5 (no date) 1938
EZ6 Malta EZ6

Maltese	*English*
"Red sky at evening, harness your mules. Red sky at morning, herd your beasts."	"Red sky at night, Shepherd's delight. Red sky in the morning Shepherd's warning."
"Ill weather comes, ahead or astern, when the cat sneezes."	"The cat washes herself before stormy weather."

821
171
539
[825]

Often it appears that sheer nonsense is mixed with sound common sense. Typical of the mixed "sense" and "nonsense" is the following:

245
824
242

"The first autumnal produce of the wild fig is called by the Maltese *Barru*. A second crop which takes place in winter is supposed to be due to the outcome of the first produce. This is called *Carru*, and is supposed to bring forth the third outcrop which appears in spring time and is recognized as the *dukkar* or real fertilizer of the fig. This fruit is cut and hung up in pairs on the bough of the fig tree.

"The male fruit (*dukkar*) is usually full of a colony of minute winged insects by the produce of which, the Maltese husbandman identifies the real fertilizing fruit. [825]

"The pomegranate is supposed to be fertilized by the flowers of the wild parsnip, and for this purpose bunches of these flowers are thrown over the pomegranate tree when in flower. *Dakra*, probably from *dakar* = to fertilize, is the name given to the wild parsnip by the Maltese husbandman.

"The male flowers of the wild carob-tree (*baghal*) are thrown over the branches of the female plant to favour impregnation.

Small pieces of coarse stone are still hung up in the jujube-tree with a view to securing a good produce.

241
823

8:Brockman T-5 (no date) 1938
EZ6 Malta EZ6

241 823 [171] Husbandmen would still consider that queer operation as a medium of impregnation (*Dukkar*). This strange usage may, however, be traced amongst the *fellahin* of Upper Egypt, where, as Professor Sayce points out in his contribution to the *Cairene and Upper Egypt Folklore* (Folklore, Vol. XXXI, No. 2, 1920, p. 200) phallic symbols are still hung up to protect the melons and sugar-cane. The old Maltese practice of hanging up stones to the jujube-tree may therefore be considered as a modification of this early phallic worship."[1]

The sense contained in these practices requires no elucidation. The horticulturist with his camel hair brush does no better than the peasant with the male carob flowers. The votive stones are a silent appeal to the oldest and greatest of the Old Things, to the All-Father, Giver of Life and Fertility, whose ancient and enduring image, from Drizzlecombe in Devon to the High Places of Melanesia, is the Rock or Stone without shape—the altar of "The Unknown God"—"Thou art Peter and upon this Rock. . . ."

[538] Traces of this rock-cult are plentiful enough in Maltese folklore. Children who throw stones into a well or into the sea will one day have to gather them up by their eyelashes. The "old stones" (i.e. *menhir*) resent being moved and are, for that reason, twice as heavy as ordinary stones.

751 825 776 "St. Paul's tongue"—a valuable amulet against the evil-eye and against all venoms—takes the form of fossilized teeth found in the ancient rocks. The blessed tongue which preached the gospel of the Redeemer is enshrined for ever in rock, the symbol of the Father.

776 823 St. Paul's rock-cell, in which he is reputed to have lived, has the miraculous property that no matter how much of the rock is cut away its bulk grows no less—a clear expression

[1] Lecture by Mr. Cremona at the University of Malta in 1922.

9: Luke G-5 (ca. 1920-ca. 1960) 1960
EZ6 Malta EZ6

rocky surfaces of the island, the tram-lines of neolithic man; and he will notice, if he is observant, that the dimensions of the flat two-wheeled carts which, with their gaily caparisoned little ponies or donkeys, are the traditional vehicle of the Maltese countryman of to-day correspond almost exactly with those of the carts of his neolithic predecessor, as deduced from the width of these ancient tracks. If he is interested in strange animals that still survive but must be a living link with hoary antiquity, he can study on the picturesque, uninhabited islet of Filfla, now used only as a target for gun practice, a remarkable lizard of the darkest green spotted with red (*Lacerta muralis* var. *filfolensis*), which occurs nowhere else in the world but on this tiny and diminishing spit of rock.

The dominant architectural notes of the Maltese Islands are megalithic and Baroque, and the gamut thus established can scarcely be called a narrow one. So far as works of art are concerned, the Museum in Valetta, housed before World War II in the Auberge d'Italie and since 1958 in that of Provence, contains a scientifically arranged exhibition of Stone Age culture unrivalled in any other country. This collection, whose most bizarre items are the astonishing fat female deities characteristic of Maltese neolithic sculpture, was organized in chronological sequence by the Museum's late learned Director, Sir Themistocles Zammit, who made a second international reputation in the field of Maltese archæology and excavation after having made an earlier one in medical research in connexion with undulant, or Malta, fever.

But the visitor is not obliged to study the activities of these remote peoples solely in museums. If he wishes to see how the distant forbears of the present population cultivated their land he has only to watch the Maltese farmer of to-day ploughing his field; if he is a student of cultural survivals he will note the eye of Osiris still painted on the bows of Malta's sturdy little schooners and characteristic "Gozo boats." If

9: Luke G-5 (ca. 1920-ca. 1960) 1960
EZ6 Malta EZ6

795 by one, as the names of their parishes are called out, advance
659 to the Governor's throne and present to him a large and
796 heavy wax candle, generally embellished with painted decorations.

This Candlemas ceremony has been maintained uninterruptedly from the days when the State was the Order of S. John; and the Governor takes this occasion, as did his predecessors the Grand Masters, to address the assembly on the problems of the day, with particular emphasis on the manner in which Church and State can best co-operate for the benefit of the people. It gives the Governor of Malta the same sort of opportunity, *mutatis mutandis*, to make public pronouncements on matters of policy as the British Prime Minister is given at the Lord Mayor's Banquet. A collation brings this happy and useful function to a close.

Here it may be added that the Governor retains, as the successor of the Grand Masters, certain ecclesiastical patronage, such as the nomination to the post of Dean of the Cathedral Chapter of Malta and the right of presentation to various benefices. A survival of another sort from the days of the Knights is the religious corporation known as the Collegiate Church of S. Paul's Grotto at Rabat, whose Canons still wear at their ceremonies the habit, *stolone* and cross of the Order.

●241' The principal industry of the Maltese islands is agriculture,
433 and the Maltese, despite the stony nature of their land, are skilful and industrious farmers with a wonderful knack of extracting the utmost from the soil, despite methods necessarily somewhat primitive since their fields are too small for modern agricultural machinery. Maltese potatoes and Maltese oranges have a high reputation. Vegetables are good, especially tomatoes; wheat does well where there
[439] is room to grow it. But the islands can produce only a fraction of their annual consumption of cereals, and much
251 has therefore to be imported from outside. Among the most
178 familiar features surviving from the era of the Knights are

9: Luke G-5 (ca. 1920-ca. 1960) 1960
EZ6 Malta EZ6
Gozo

that would not disgrace Taormina, or in the summer, when its tangled mass of vegetation forms an almost solid screen of verdure from the blazing sun, it would seem a fitting lair for the daughter of Atlas if it did not rather conjure up, with its figs, its vines, its calamus and its pomegranates, a vision of the Song of Songs.

Certainly Gozo is more fertile, less rocky, more verdant than is Malta. Edward Lear called its scenery "pomskizillious and gromphiberous, being as no words can describe its magnificence." It is not broken up to anything like the same extent by the stone and rubble walls which in the larger island so provokingly conceal gardens and fields from all except aviators. In Gozo it is easy to enjoy wide vistas of green corn and purple clover, of terraced cultivation along the contours of its seven flat-topped hills.

Like Malta, Gozo ends on its south-western coast in sheer rock-faces that rise abruptly as much as 400 feet from the sea. But elsewhere its coast-line is more varied than Malta's, with its pleasant miniature fjords of Xlendi and Xini, the yellow sands of Ramla, the blue lagoon of Qala Dwejra, the mysterious landlocked bay of Kawra, the grim cliffs of Ta Ċenċ and Ras il Wardija. Its architecture, too, is highly characteristic, and although its villages bear a general resemblance to the casals of Malta, they can be distinguished from these by the handsome carved stone balconies which have happily remained one of Gozo's pleasantest and most live traditions. These balconies are a feature throughout the island but are to be seen at their best in the Manderaggio of Victoria, for Gozo, too, has its Manderaggio.

The capital of the island, Rabat or Victoria—Rabat because it is the suburb of the walled fortress above it—sprawls pleasantly at the foot of the great rock on which rises, like Edinburgh Castle, its bastioned and embattled citadel. This high place was designed as a stronghold, a place of refuge from the Barbary pirates, just as were the little hill-towns of the Riviera, Eze and many another, that look down on the